

A

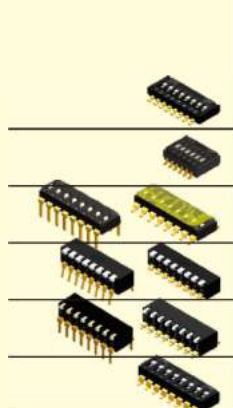
ILLUMINATED SWITCH



Series	Contact Type	Features	Dimensions(mm)	Page
MLF	Silver	Right Angle (SMT)	8.8x4.8	A-01
ML9 NEW	Silver	SMT	8.0x8.4	A-02
MLC	Silver	Right Angle	6.8x7.7	A-03
ML3	Gold / Silver	Right Angle	4.5x6.2	A-04
ML4	Silver	SMT	4.9x4.9	A-06
ML5	Silver	Through Hole	6x6	A-07
ML6-H0	Silver	Through Hole	6x6	A-08
ML6-H1	Silver	Through Hole	6x6 / Cap:10x10	A-09
ML6-H2	Silver	Through Hole	6x6 / Cap:Ø5.5	A-10
ML6-H4	Silver	Through Hole	6x6 / Cap:Ø10	A-11
ML6-H5	Silver	Through Hole	6x6 / Cap:Ø14	A-12
ML6-H6	Silver	Through Hole	6x6 / Cap:7.5x7.5	A-13
ML8	Silver	Right Angle	8.7x9.6	A-14
TL(L)A(G)-7	Silver	Right Angle	7x7.4	A-16
TLR-7	Silver	Right Angle	6.5x7.4	A-18
TL(L)(M)-6	Silver	Through Hole & SMT	6.1x6.1	A-19
KTL		Cap Accessories for TLL-6	Square:□10.2 / Round:Ø10.2	A-21
TML-3	Silver	SMT	6.8x4.1	A-22
ZPA		Wiring	Ø12	A-23
ZPBL		Wiring	Ø5.4	A-28
ZPSD		Through Hole	8.5x7.5	A-29

B

DIP SWITCH

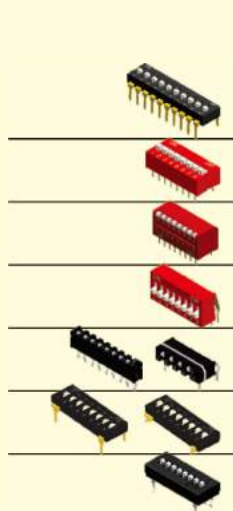


Series	Contact Type	Features	Dimensions(mm)	Page
DHN(F)	Gold	Half Pitch (H:1.6mm)	2,4,6,8,10	B-01
DHA	Gold	Half Pitch (H:2.2mm)	2,4,6,8,10,12	B-03
E(M)(I)(S)(J)	Gold	End Stackable	1-10 , 12	B-04
NP(I)(M)	Gold	Piano	2,4,6,8,10	B-07
EP(I)(M)	Gold	End Stackable Piano	2,4,6,8,10	B-09
D(M)(J)(L)	Gold	SMT	1-10 , 12	B-11

INDEX

B

DIP SWITCH



Series	Contact Type	Features	Dimensions(mm)	Page
NDI	Gold	Through Hole	1-10 , 12	B-13
NDS	Gold	Through Hole	1-10 , 12	B-14
NDP	Gold	Piano	2-10, 12	B-15
NDA	Gold	Right Angle	2-10, 12	B-16
SIP	Gold	Single in Line	2,4,6,8,10	B-17
TII, TIM	Gold	Tri-State Low Profile	4,5,8,9,10	B-19
TDS	Gold	Tri-State	8,9,10	B-21

C

ROTARY CODED SWITCH



Series	Contact Type	Features	Dimensions(mm)	Page
RB	Gold	Rotary 10x10 Sealed	8, 10, 16	C-01
KRB		Cap Accessories for RB	Short/Long Spindle & Segment Wheel	C-03
SV3A-4	Gold	Rotary 10x10	4	C-04
R(H)(V)(M)(S)	Gold	Rotary 10x10	10, 16	C-05
RJ	Gold	Rotary 7x7	10, 16	C-08
R7	Gold	Rotary 7x7	10, 16	C-10

D

TACT SWITCH



Series	Contact Type	Features	Dimensions(mm)	Page
TL()-A1	Silver	Sealed	10x10	D-01
TL()-A2	Silver	Sealed	10x10	D-03
TL()-B1	Silver	Sealed	10x10	D-05
TL()-B344	Silver	Sealed	10x10	D-07
DTSA-2	Silver	Right Angle	13.1x14.7	D-09
DTSM-2	Silver	SMT	12.0x12.0	D-11
DTS(G)(P)-2	Silver	Through Hole & Ground Terminal	12.0x12.0	D-13
DTS(G)-6	Gold / Silver	Through Hole & Ground Terminal	6.2x6.2	D-16
DTS(M)(J)-6	Gold / Silver	SMT & J SMT	6.2x6.2	D-18
DTSA-6	Gold / Silver	Right Angle	7.4x7.1	D-21
T7A	Silver	Double Layers Right Angle	7.3x9.66	D-24

INDEX

D

TACT SWITCH

	Series	Contact Type	Features	Dimensions(mm)	Page
	T7B NEW	Silver	SMT	7.5x7.0	D-25
	DTST-6	Silver	Radial Taping	6.2x6.2	D-26
	KTSC-(6)(2)		Cap for 6x6/12x12 Tact Switch	Round / Square	D-27
	DTS()W-2	Silver	Sealed	12.0x12.0	D-28
	T6W	Gold / Silver	Long Travel SMT Sealed	6.2x6.2	D-31
	T6WA NEW	Silver	Right Angle	6.4x6.55	D-33
	DTSHW-6	Gold / Silver	Sealed	6.2x6.3	D-34
	DTS(G)MW-6	Gold / Silver	Sealed	6.2x6.3	D-36
	DTSJW-6	Gold / Silver	Sealed	6.2x6.3	D-39
	DTSJW()-6	Gold / Silver	Sealed	6.2x6.3	D-41
	DTSYHL-6	Silver	Thinner Type Pitch 4.0mm	6.2x6.2	D-42
	DTS(G)ZML-6	Silver	Thinner Type Pitch 4.5mm	6.2x6.0	D-43
	DTS(G)(L)(F)-6	Silver	Thinner Type Pitch 4.0mm	6.2x6.4	D-45
	TA3	Gold / Silver	Right Angle (SMT)	6.3x6.18 / 7.11	D-47
	TA-6	Silver	Right Angle (SMT)	6.1x6.6	D-49
	T1A	Silver	H:0.60mm	2.8x1.9	D-51
	T1B NEW	Silver	H:0.55mm	2.6x1.6	D-52
	T3AL	Silver	H:0.45mm / 0.65mm	2.6x3.0	D-53
	T3BL	Silver	H:0.35mm	3.7x3.7	D-54
	T3C	Silver	H:0.60mm	3.0x2.0	D-55
	T4BJ	Silver	H:0.55mm	4.8x4.8	D-56
	TJ-4	Silver	H:0.55 mm	4.4x4.4	D-57
	T()E-5	Gold / Silver	H:0.8 mm / H:1.5mm	5.2x5.2	D-58
	T6H	Gold / Silver	Through Hole, Right Angle, SMT	7.4x7.4 / 8.0x8.0	D-60
	1188	Silver	Side Push	3.5x7.0	D-62
	TA(C)(2)-3	Silver	Side Push	3.95x7.3 / 4.65x7.0	D-64
	TAF	Silver	Side Push	3.3x4.5	D-67
	MTA2	Silver	Side Push	1.8x4.5	D-68
	TCD	Silver	PCB Sealed Type Side Push	1.7x4.5	D-69



INDEX

D

TACT SWITCH

	Series	Contact Type	Features	Dimensions(mm)	Page
	TCK NEW	Silver	PCB Sealed Type Side Push	1.55x3.85	D-70
	TCE	Silver	Side Push	1.65x3.8	D-71
	T1C	Silver	Side Push Mid-mount	2.8x1.95	D-72
	TCF	Silver	Side Push Mid-mount	2.9x4.5	D-73
	TCH	Silver	Side Push Mid-mount	4.5x2.2	D-74
	T6L	Silver	Long Travel	5.9x6.0	D-75
	LTL-6	Silver	Long Travel	6.2x6.2	D-76
	DTS(M)-3	Silver	Through Hole & SMT	3.5x6.0	D-77
	TAE	Gold / Silver	Thinner (H:2.5mm)	3.8x6.0	D-79
	T(M)(J)G-325	Silver	Thinner (H:2.5mm)	3.7x6.0	D-80
	IPT	Gold / Silver	Side / Vertical Push	2.8x3.8	D-81
	MPT	Silver	Side / Vertical Push	2.9x3.9	D-82
	PT	Silver	Side / Vertical Push	3.5x4.7	D-83
	TBF	Silver	Side / Vertical Push	2.9x3.5	D-85
	TBE	Silver	Vertical Push	2.7x3.0	D-87
	TAH NEW	Silver	Vertical Push	3.2x4.0	D-88

E

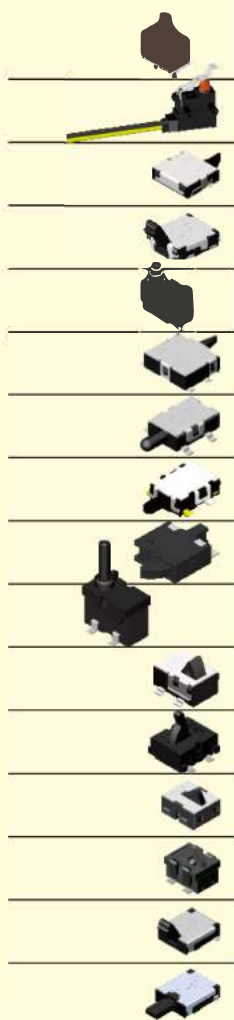
SLIDE SWITCH

	Series	Contact Type	Poles-Positions	Stroke	Page
	SL6	Silver	2-2	2.0mm	E-01
	LSS	Silver	1-2, 2-2	2.0mm	E-02
	SD12	Gold	1-3	1.5mm	E-05
	SS3	Gold	1-2	2.0mm	E-06
	SS4	Gold	1-3	2.0mm	E-08
	MSS(3)(4)	Gold	1-2, 1-3	1.5mm	E-10
	MSS(6)(14)	Gold	2-2, 1-4	1.5mm	E-11
	SC12P	Silver	1-2	2.5mm	E-12
	SSS	Gold / Silver	1-2	2.7mm	E-13
	NSS	Gold / Silver	1-3	2.0 / 4.0mm	E-14
	S2S	Gold / Silver	1-2, 1-3	1.5mm	E-16

INDEX

F

DETECTOR SWITCH



Series	Contact Type	Features	Operation Direction	Page
LTE NEW	Silver	8.3x5.3x7.0 mm	Vertical	F-01
KTE NEW	Gold	5.4x13 mm	Vertical	F-02
ELH	Silver	3.3x3.5 mm	Horizontal	F-03
ELU	Silver	3.6x4.2 mm	Vertical	F-04
ESG NEW	Silver	13.3x8.2x13.4 mm	Vertical	F-05
DTE	Silver	4, 15x5 mm	Horizontal	F-06
FTE	Gold / Silver	4.0x5.55 mm	Horizontal	F-07
HTE	Gold / Silver	5.6x5.7 mm	Horizontal	F-09
TE-MR	Silver	4, 7x6 mm	Horizontal	F-10
TE	Silver	3.9x6.5 mm (H: 8.4 / 10.7 mm)	Vertical	F-12
JTE	Silver	3.5x4.7 mm	Vertical	F-14
ATE	Silver	4.5x4.7 mm (H:3.8 / 5.3 mm)	Vertical	F-15
BTE	Silver	2, 8x3.5 mm	Vertical	F-16
CTE	Silver	2.98x3.5 mm	Vertical	F-17
TU	Silver	3.6x4.2 mm	Vertical	F-18
TU-D	Silver	3.6x4.2 mm	Vertical	F-19

G

MULTI FUNCTION SWITCH



Series	Contact Type	Features	Dimensions(mm)	Page
M2D	Silver	Double Action / H:0.6mm	4.1x4.3	G-01
M2P	Silver	Double Action & Lever	7.0x7.0	G-02
PL3	Silver	Push & Lever	11.8x11.8	G-03
PL	Silver	Push & Lever	11.3x9.3	G-05
MT(4)(5)	Silver	4-Direction (& Center Push)	7.7x7.4	G-09
SRM	Silver	8-Direction	11x11.5	G-11
TT5	Silver	5-Direction	9.3x9.3	G-12

APPLICATION

Smart Wearable



Power/Camera Button/Volume Button

Tact Switch



Double Action Type Tact Switch:



Function Button

Tact Switch



Mute Button

Slide Switch:



Cloud Devices



Function Setup Key

Dip Switch:



Power Key

Illuminated Switch:



Tact Switch:



Rotary Switch:



Detector Switch:

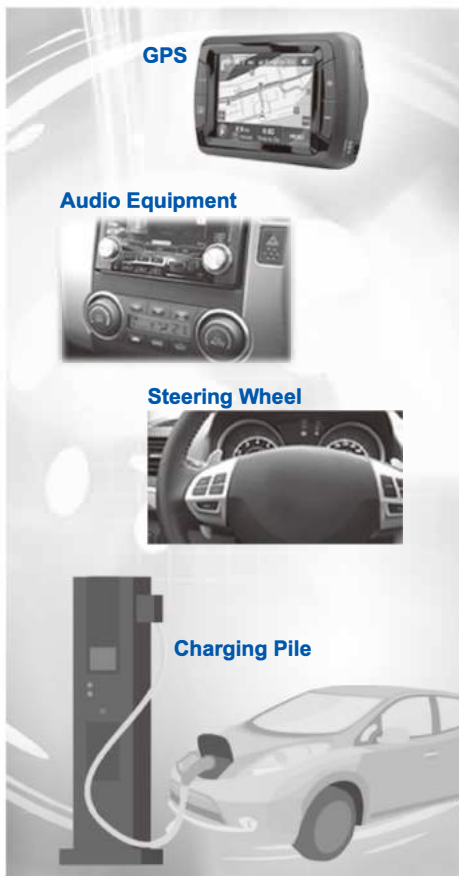


Micro Switch:



APPLICATION

Automotive Industry



GPS

Slide Switch:



SS3



SD12



MSS3

Push Lever Switch:



PLJG



PL3

Tact Switch:



1188



TCK



PT



TBF



TCD

Audio Equipment

Tact Switch:



DTSM-6



DTSL-6



T6L



T6W



DTSGZM-6



TAC-3



DTSM-3



LTL-6



DTS-2



DTSMW-2

Illuminated Switch:



ML3



ML4



MLC



ML9



TT5

Steering Wheel

Tact Switch:



DTSMW-2



DTSL-6



DTSM-6



TME-5



TBE

Charging Pile

Detector Switch:



LTE



KTE

IT Industry



Remote Control

Tact Switch:



DTSM-3



MPT



IPT



DTSL-6



DTSGZM-6



TME-5



T4BJ



TJ-4



TBE



TBF

Dip Switch:



TDS



TIM



MSS



SS3



S2S

Push Lever Switch:



PLJG



PL3

Walkie-talkie

Tact Switch:



1188



TA3



TAS-6



T7B



DTSM-6



T3AL



T3BL



T3C



TME-5



DTSA-6



T1B



T1A



TCK



TAH

Mother Board/Modem/Nettop

Dip Switch:



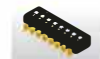
NDS



NDA



NDP



DM



EI

Illuminated Switch:



MLC



TLLA-7



ML6



ML8



ML4

LCD Panel

Tact Switch:



DTSM-6



DTSA-6

APPLICATION

3C Industry



Double Action Type Tact Switch:



M2P



M2D



MT5



TT5

Slide Switch



SS3



SSS



S2S



MSS3



MSS4

Tact Switch:



TJE-5



T3AL



T3BL



PT



IPT



T1C



TCF



MTA2



TBF



TCH



T1A



T3C



T1B



TJ-4



T7B



1188



TAC-3



TCK



TAH

Detector Switch:



ATE



JTE



TU



ELH



ELU



TE-MR



DTE

Illuminated Switch:



ML4



TML-3



ML3

Slide Switch:



NSS



SC12P



SS4

White Goods



I-Robot

Tact Switch:



DTSM-6



DTS-2



DTS(M)-3



TCK



TAH

Coffee Machine

Illuminated Switch:



TLLA-7



TML-3



ML4



MLC

Tact Switch:



TMG-325



1188



TAC-3



TME-5



TBE

Dish Washer

Tact Switch:



1188



TAC-3



TAS-6



DTSL-6

Washing Machine

Washable Tact Switch:



DTSHW-6



DTSMW-2



T6WA



T6W



DTS(G)MW-6

Illuminated Switch:



TLLA-7



TLL-6



ML6



ML4



MLC

Vacuum

Tact Switch:



TCK



DTSL-6



DTSM-6



MS1



MS2



TAH



TME-5



DTSGZM-6



MSW

Micro Switch:

APPLICATION

Medical Devices



Thermometer

Tact Switch:



DTSM-3



TMG-325



TAE



TBE



TBF

Illuminated Switch:



TLL-6



TML-3



ML4



ML9

Blood Pressure Gauge

Tact Switch:



TME-5



T1A



T3C



T1B



DTS(M)-2



DTSL-6



DTS(M)-6



T7B



TCK



TAH

Illuminated Switch:



ML9

Ear Thermometer

Tact Switch:



TME-5



TMG-325



DTS(M)-3



TAE



TBE

Dip Switch:



EI

Electric Toothbrush

Tact Switch:



DTS(M)-6



TCK



TAH

Detector Switch:



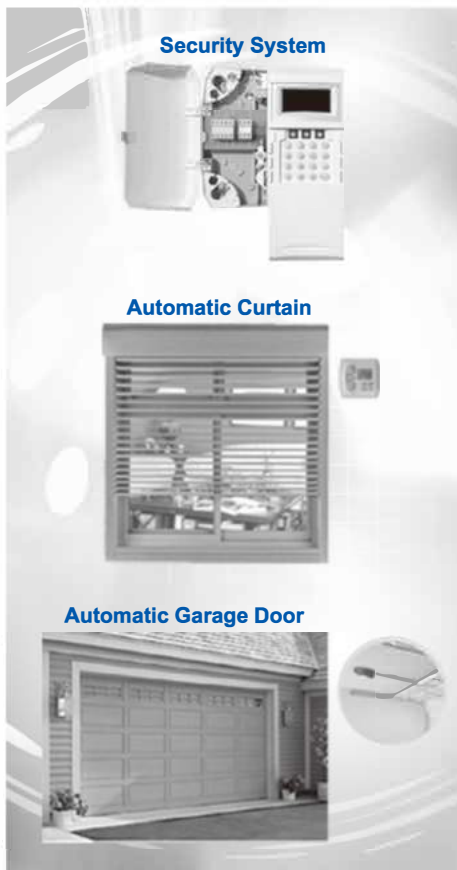
CTE

Illuminated Switch:



ML9

Automatic Home Appliances



Security System

Detector Switch:



TE-MR

Rotary Switch:



RM



R7



RJ



RB

Automatic Curtain

Dip Switch:



EM



NPI



EPI

Tact Switch:



DTS(M)-6



TME-5



TBE



TCK



TAH



TAF



TCD

Slide Switch:



SC12P

Automatic Garage Door

Dip Switch:



EM



SIP

Tact Switch:



DTS(M)-3



TCK



TAH



TCD

APPLICATION

Security



Smoke Detector

Tact Switch:



Dip Switch:



Rotary Switch:



GAS Alarm

Slide Switch:



Detector Switch:



Industrial Control Field



Tact Switch:



Slide Switch:



Rotary Switch:

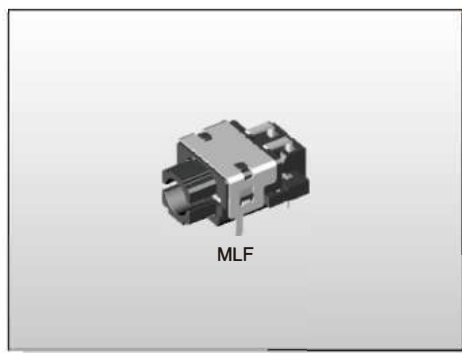


Dip Switch:



Illuminated Switch:





MLF

HOW TO ORDER**MLF - 3** **QR**Operating Force:
200gfPackage:
Tape & Reel

Halogen Free

LED Color:
□=Without LED
AW=Amber/White**FEATURES**

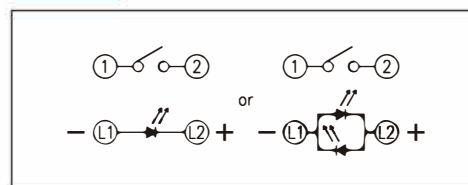
- ※Horizontal operation
- ※Various LED colors
- ※Mid-mount type

APPLICATION

- ※Server, desktop
- ※Communication apparatus
- ※IPC

SPECIFICATION

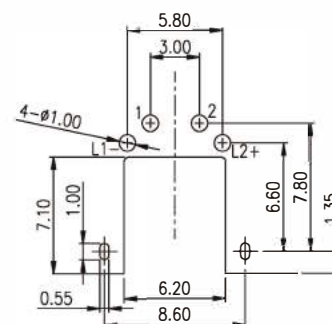
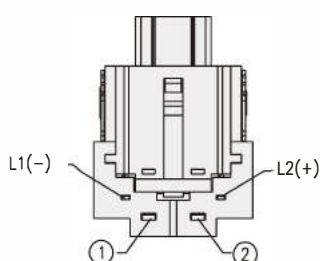
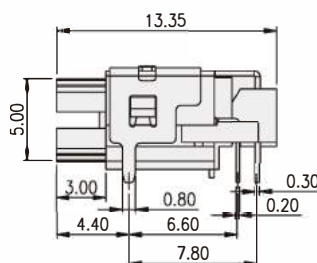
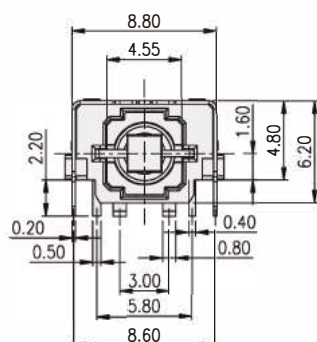
Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	10MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	200±70gf
Travel	1.5mm
Operating Life	100, 000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT**PACKAGE**

<Tape & Reel>
570 pcs.

MLF**LED Color Options:**

Part No.	Color	Dominant Wavelength λ_d Typ.(nm)	Luminous Intensity I_v (mcd)	Forward Voltage V_F (V)		View Angle 2- $\theta_{1/2}$ (Degree)
			Typ.	Typ.	Max.	
B	Blue	470	70	3.0	3.6	140°
PG	Pure Green	520	160	3.2	3.6	
G	Yellow Green	570	30	2.0	2.3	
Y	Yellow	590	60	2.0	2.3	
A	Soft Orange	605	50	2.0	2.3	
R	Deep Red	640	25	2.0	2.3	
W	Cold White	X:0.30 / Y:0.30	350	3.0	3.6	



P.C.B. LAYOUT

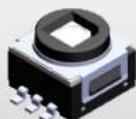


ILLUMINATED SWITCH ML9 SERIES

Tact Switch
Illuminated



NEW



ML9

FEATURES

- ※ Various LED options
- ※ 300,000 operating life cycles

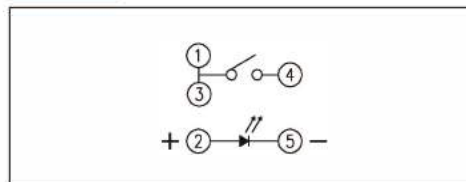
APPLICATION

- ※ Automotive
- ※ Network equipment
- ※ Telecommunications
- ※ Medical equipment
- ※ Industrial controls

SPECIFICATION

Contact Rating	50mA, 32V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	400±100gf
Travel	0.45mm
Operating Life	300,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-55°C ~ +85°C

CIRCUIT



PACKAGE

<Tape & Reel>
650 pcs.

HOW TO ORDER

M L 9 - M ☐ ☐ ☐ **Q R**

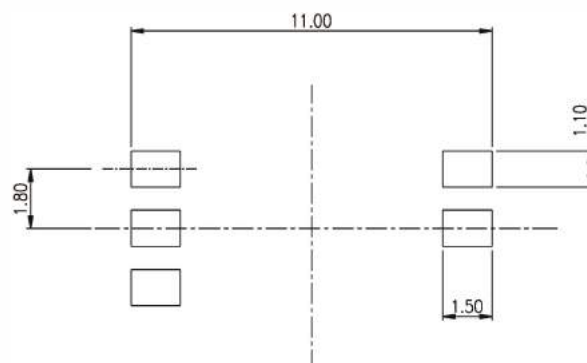
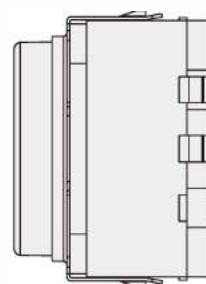
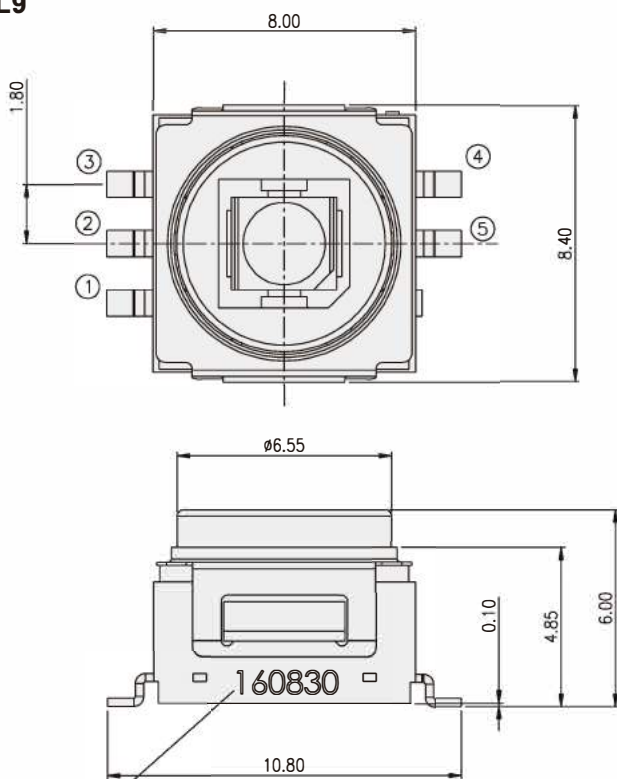
S.M.T. ☐ Package: Tape & Reel

☐=Without Post ☐=With Post Halogen Free

Operating Force: 4=400gf

LED Color:
☐=Without LED
 B=Blue
 G=Green
 R=Red
 W=White
 Y=Yellow
 A=Amber

ML9



P.C.B. LAYOUT

Date code: YYMMDD



EL.ITALIA SRL

www.dip.com.tw
 T 02.33611626 info@elitaliaweb.it
 F 02.26261009 www.elitaliaweb.it

A-02

ILLUMINATED SWITCH



MLC

FEATURES

- ※Horizontal operation
- ※Various LED colors
- ※Long operating life

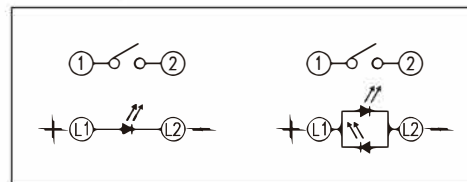
APPLICATION

- ※Automotive
- ※Server
- ※Laptop, IPC

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	220±50gf
Travel	0.25mm
Operating Life	100,000 cycles
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

CIRCUIT



PACKAGE

<Tray>
200 pcs.
<Tape & Reel>
350 pcs.

HOW TO ORDER

MLC - 6 WAQ

Operating Force:
3=220gf

Package:
A=Tray
R=Tape & Reel

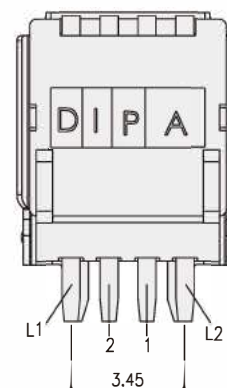
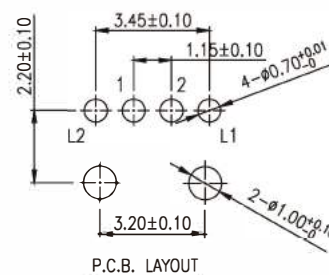
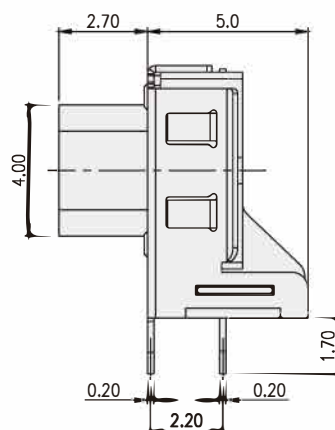
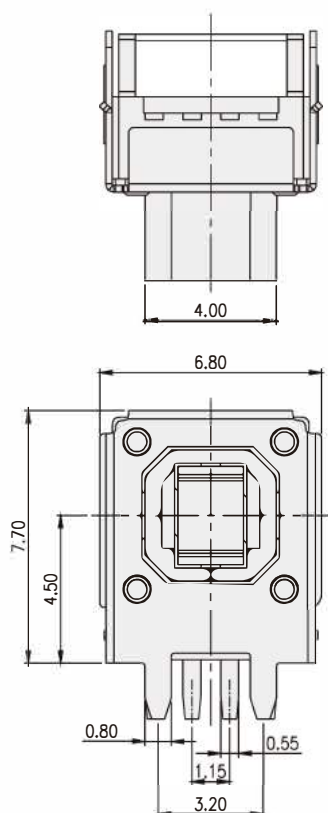
Halogen Free

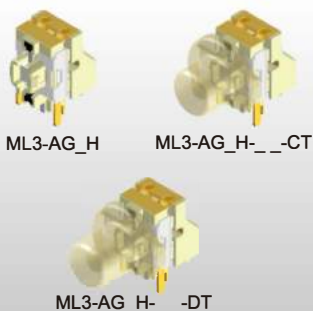
LED Color:
White+Amber

MLC

LED Color Options:

Part No.	Color	Dominant Wavelength λ_p Typ.(nm)	Luminous Intensity I_v (mcd)	Forward Voltage V_F (V)		View Angle $2-\theta_{1/2}$ (Degree)
			Typ.	Typ.	Max.	
B	Blue	470	200	3.1	3.4	120°
G	Yellow Green	570	70	2.0	2.3	
W	Warm White	X:0.30 / Y:0.30	1000	3.1	3.7	



**FEATURES**

- ※ Compact size, extra thin
- ※ Dual LEDs
- ※ Focused light

APPLICATION

- ※ Server
- ※ Testing Instrument
- ※ Telecommunication

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	500mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf, 250±100gf
Travel	0.2mm
Operating Life	50,000 cycles for 250gf 100,000 cycles for 160gf
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER**ML3-AG H - - - - V - R**

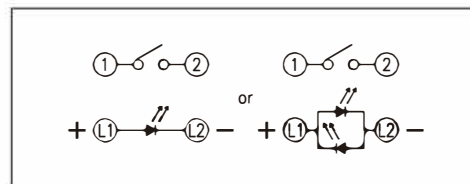
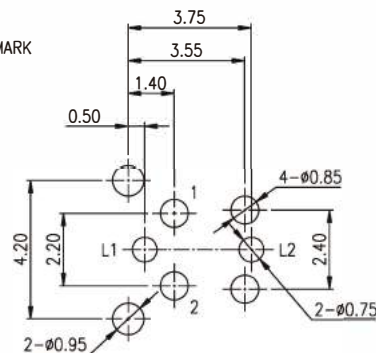
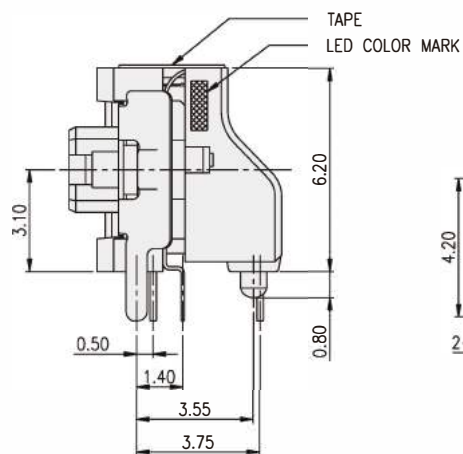
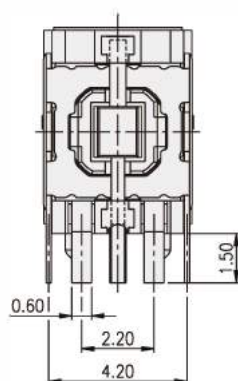
Right Angle+Ground Pin

Operating Force:
2=160gf
3=250gf

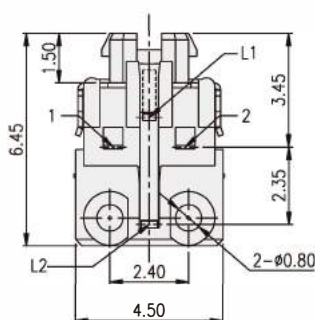
Through Hole

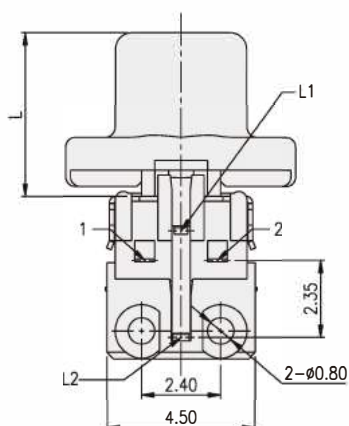
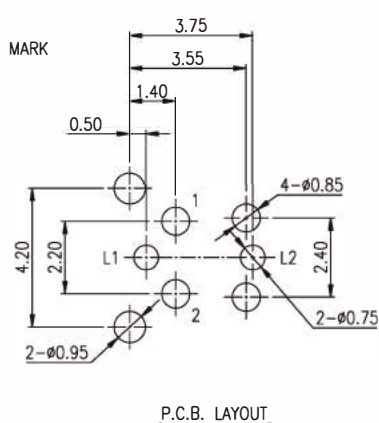
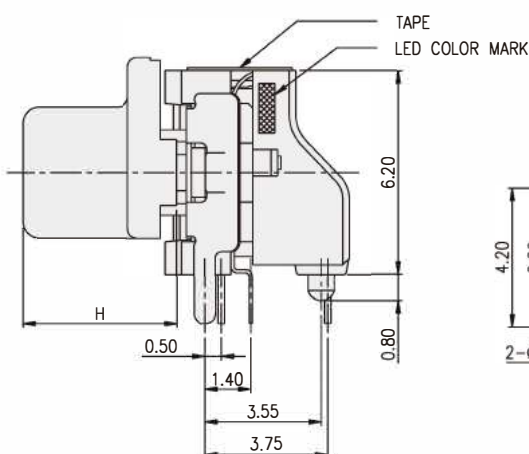
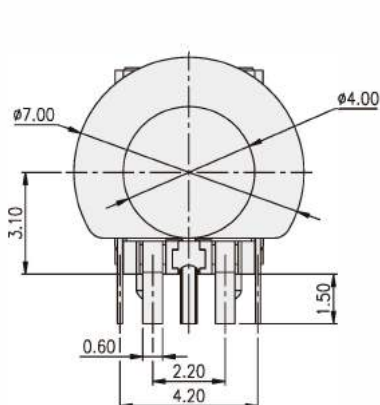
LED Color:
□=Without LED
Refer Color OptionsContact Plating:
□=Ag Plating
A3=Au PlatingPackage:
Tape & Reel

Lead Free

Cap Type:
□=Without Cap
CT=4.70mm
DT=5.70mm**CIRCUIT****PACKAGE**Without Cap: 600 pcs/reel
With Cap: 300 pcs/reel**ML3**

P.C.B. LAYOUT



ML3-AG2H

PART NO.	H	L
ML3-AG2H□-□-CT-V-R	4.7mm	5.0mm
ML3-AG2H□-□-DT-V-R	5.7mm	6.0mm

LED Color Options:

Part No.	Color	Dominant Wavelength λ_p Typ.(nm)	Luminous Intensity I_v (mcd)	Forward Voltage V_F (V)		View Angle $2\theta_{1/2}$ (Degree)
			Typ.	Typ.	Max.	
B	Blue	 470	50	3.0	3.6	140°
PB	Blue	 470	70	3.0	3.6	
PG	Pure Green	 520	160	3.2	3.6	
G	Yellow Green	 570	30	2.0	2.3	
Y	Yellow	 590	60	2.0	2.3	
A	Soft Orange	 605	50	2.0	2.3	
R	Red	 630	60	2.0	2.3	
W	Cold White	X:0.30 / Y:0.30	350	3.0	3.6	



ML4-L12W

FEATURES

- ※ Compact size 4.9x4.9 with LED
- ※ Ultra-thin: a height of 2.0mm

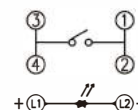
APPLICATION

- ※NB, Monitor
- ※Portable device
- ※Tablet

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf
Travel	0.25mm
Operating Life	1,000, 000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

<Tape & Reel>
2500 pcs.

HOW TO ORDER

ML4-L ☐ ☐ ☐ QR

S.M.T.

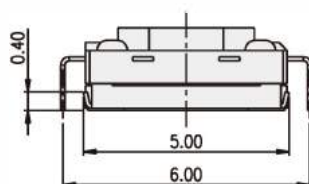
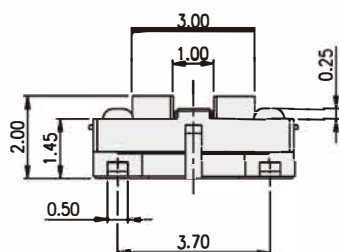
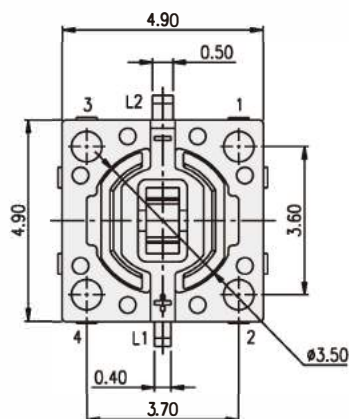
Height:—
1=2.00mm

Operating Force:
2=160gf

- Package:
Tape & Reel

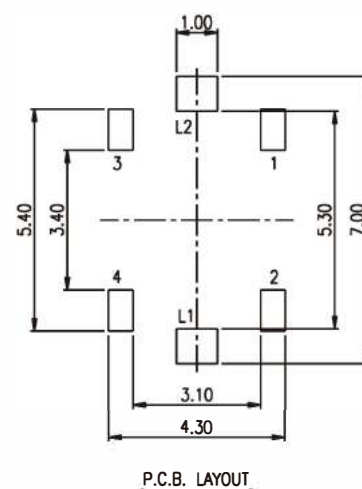
- Halogen Free

LED Color:
Refer Color Options

ML4

LED Color Options:

Part No.	Color	Dominant Wavelength λ_D Typ.(nm)	Luminous Intensity I_v (mcd)	Forward Voltage V_F (V)		View Angle $2\theta_{1/2}$ (Degree)
			Typ.	Typ.	Max.	
B	Blue	 470	100	3.0	3.6	120°
G	Green	 570	30	2.05	2.4	
R	Red	 630	50	1.9	2.4	
W	Cold White	X:0.30 / Y:0.30	150	3.0	3.6	



ILLUMINATED SWITCH ML5 SERIES

Tact Switch
Illuminated



ILLUMINATED SWITCH



FEATURES

- ※Silicone structure for low noise
- ※Long travel
- ※Options of different LED color

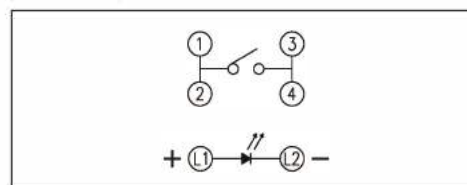
APPLICATION

- ※Audio device
- ※Office equipment
- ※Communication apparatus

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	200±70gf
Travel	1.2mm
Operating Life	50,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



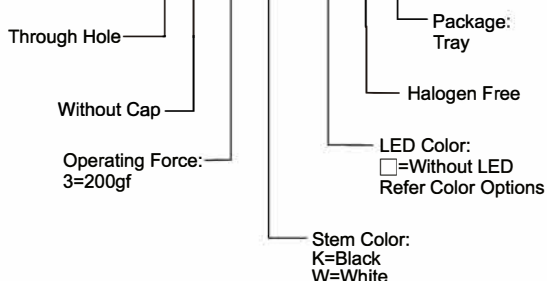
PACKAGE

<Tray>

140 pcs.

HOW TO ORDER

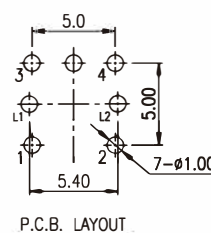
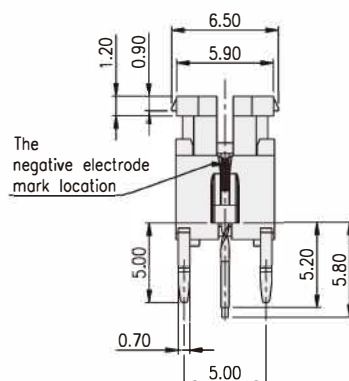
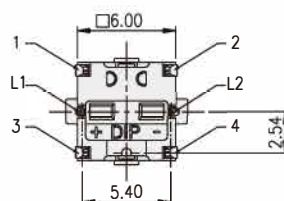
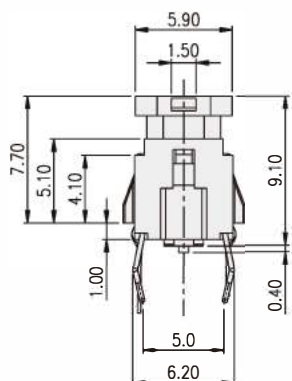
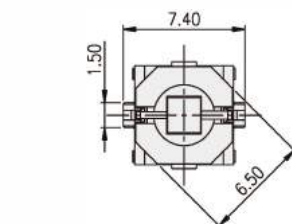
ML5 - H0 - QA



ML5

LED Color Options:

Part No.	Color	Dominant Wavelength λ_d Typ.(nm)	Luminous Intensity I_v (mcd)	Forward Voltage V_F (V)		View Angle $2-\theta_{1/2}$ (Degree)
			Typ.	Typ.	Max.	
B	Blue	470	80	3.0	3.6	140°
PG	Pure Green	520	160	3.2	3.6	
G	Yellow Green	570	30	2.0	2.3	
Y	Yellow	590	60	2.0	2.3	
A	Soft Orange	605	50	2.0	2.3	
R	Deep Red	640	25	2.0	2.3	
W	Cold White	X:0.30 / Y:0.30	350	3.0	3.6	



ILLUMINATED SWITCH ML6-H0 SERIES

Tact Switch
Illuminated



FEATURES

- ※Customized cap options
- ※Bi-color LED available
- ※Long operating life

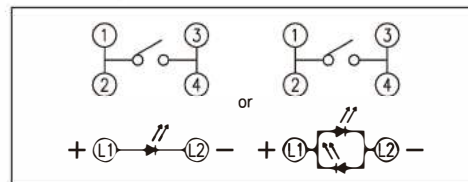
APPLICATION

- ※Sever, modem, data storage
- ※Audio module
- ※Office equipment

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf, 180±50gf
Travel	0.25mm
Operating Life	300, 000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

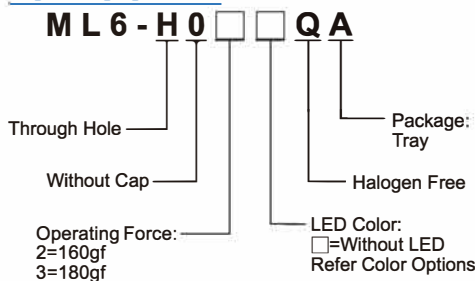
CIRCUIT



PACKAGE

<Tray>
140 pcs.

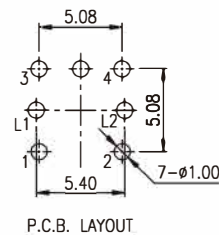
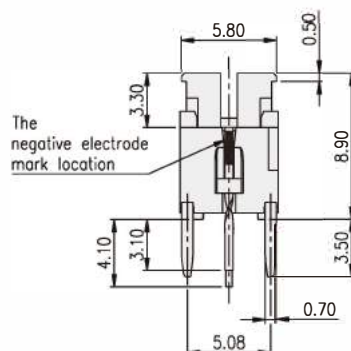
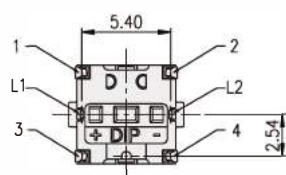
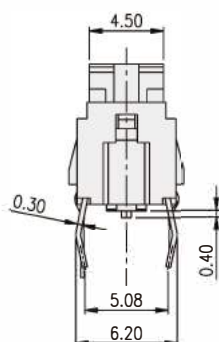
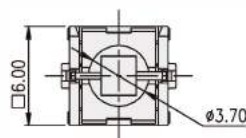
HOW TO ORDER



ML6-H0

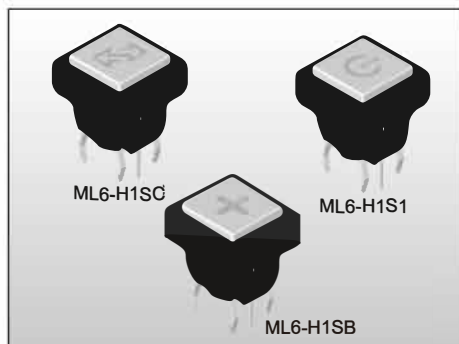
LED Color Options:

Part No.	Color	Dominant Wavelength λ_p Typ.(nm)	Luminous Intensity I_v (mcd)	Forward Voltage V_F (V)		View Angle $2\theta_{1/2}$ (Degree)
			Typ.	Typ.	Max.	
B	Blue	470	70	3.0	3.6	140°
PG	Pure Green	520	160	3.2	3.6	
G	Yellow Green	570	30	2.0	2.3	
Y	Yellow	590	60	2.0	2.3	
A	Soft Orange	605	50	2.0	2.3	
R	Red	630	60	2.0	2.3	
W	Cold White	X:0.30 / Y:0.30	350	3.0	3.6	



ILLUMINATED SWITCH ML6-H1 SERIES

Tact Switch
Illuminated



FEATURES

- ✧ Customized cap options
- ✧ Bi-color LED available
- ✧ Long operating life

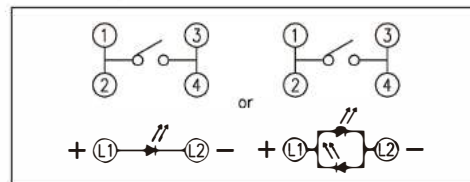
APPLICATION

- ✧ Sever, modem, data storage
- ✧ Audio module
- ✧ Office equipment

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf
Travel	0.25mm
Operating Life	300,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

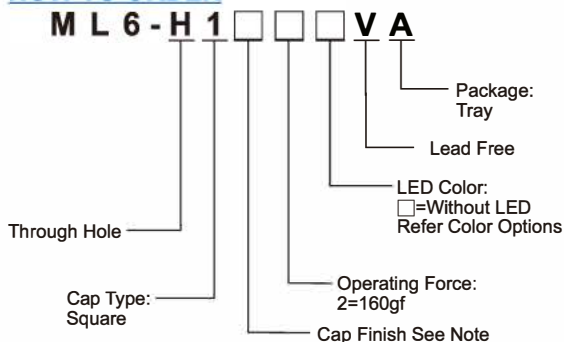
CIRCUIT



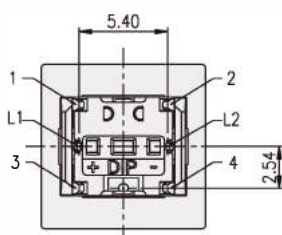
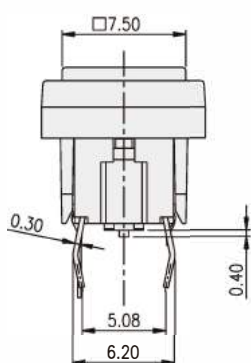
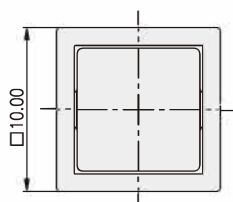
PACKAGE

<Tray>
100 pcs.

HOW TO ORDER

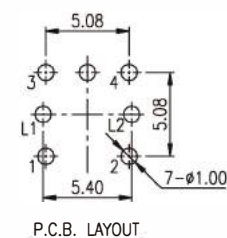
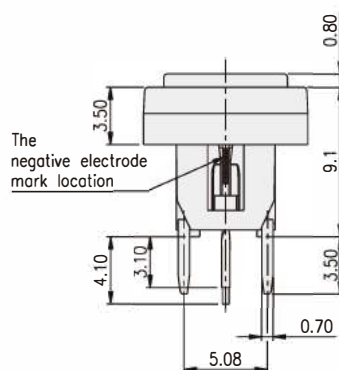


ML6-H1



LED Color Options:

Part No.	Color	Dominant Wavelength λ_p Typ.(nm)	Luminous Intensity I_v (mcd)	Forward Voltage V_F (V)		View Angle $2\theta_{1/2}$ (Degree)
			Typ.	Typ.	Max.	
B	Blue	470	70	3.0	3.6	140°
PG	Pure Green	520	160	3.2	3.6	
G	Yellow Green	570	30	2.0	2.3	
Y	Yellow	590	60	2.0	2.3	
A	Soft Orange	605	50	2.0	2.3	
R	Red	630	60	2.0	2.3	
W	Cold White	X:0.30 / Y:0.30	350	3.0	3.6	



Note :

	CAP	
	Mark	Color
S1		Silver
S2	Reset	Silver
SA		Silver
SB		Silver

ILLUMINATED SWITCH ML6-H2 SERIES

Tact Switch
Illuminated



FEATURES

- ✧ Customized cap options
- ✧ Bi-color LED available
- ✧ Long operating life

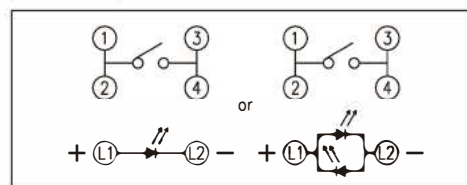
APPLICATION

- ✧ Sever, modem, data storage
- ✧ Audio module
- ✧ Office equipment

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf
Travel	0.25mm
Operating Life	300,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

<Tray>
100 pcs.

HOW TO ORDER

M L 6 - H ☐ **T** ☐ ☐ **Q A**

Through Hole

Cap Type:
2=Round / H:7.90mm

Cap Color:
Matted Transparent

Package:
Tray

Halogen Free

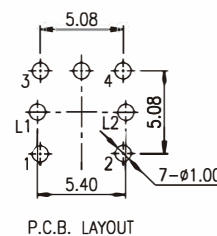
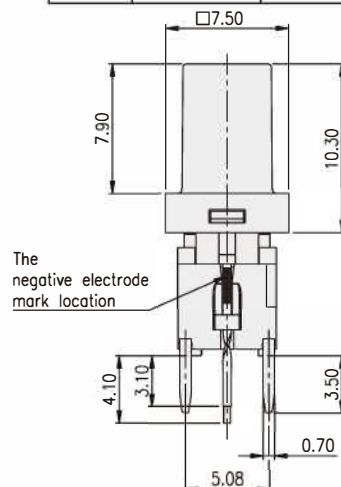
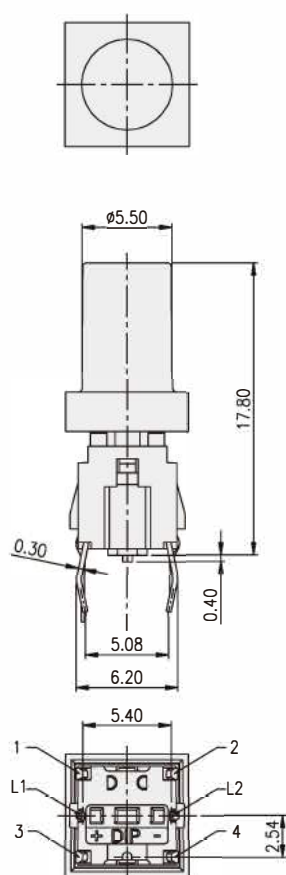
LED Color:
☐=Without LED
Refer Color Options

Operating Force:
2=160gf

ML6-H2

LED Color Options:

Part No.	Color	Dominant Wavelength λ_p Typ.(nm)	Luminous Intensity I_v (mcd)	Forward Voltage V_F (V)		View Angle $2\theta_{1/2}$ (Degree)
			Typ.	Typ.	Max.	
B	Blue	470	70	3.0	3.6	140°
PG	Pure Green	520	160	3.2	3.6	
G	Yellow Green	570	30	2.0	2.3	
Y	Yellow	590	60	2.0	2.3	
A	Soft Orange	605	50	2.0	2.3	
R	Red	630	60	2.0	2.3	
W	Cold White	X:0.30 / Y:0.30	350	3.0	3.6	



ILLUMINATED SWITCH ML6-H4 SERIES

Tact Switch
Illuminated



ILLUMINATED SWITCH



FEATURES

- ※Customized cap options
- ※Bi-color LED available
- ※Long operating life

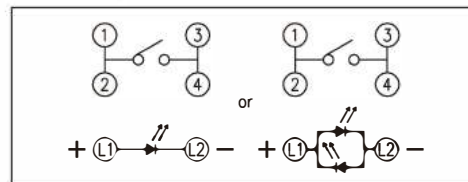
APPLICATION

- ※Sever, modem, data storage
- ※Audio module
- ※Office equipment

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf
Travel	0.25mm
Operating Life	300, 000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

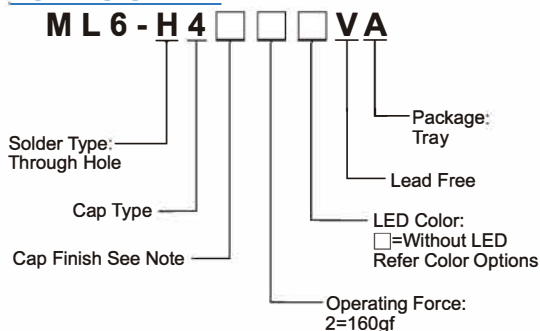
CIRCUIT



PACKAGE

<Tray>
100 pcs.

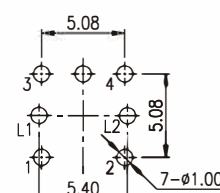
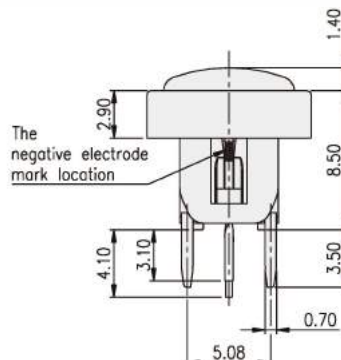
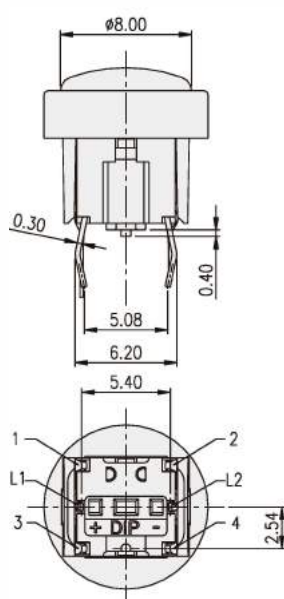
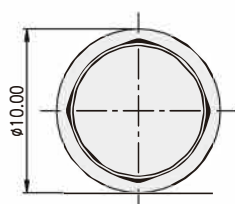
HOW TO ORDER



ML6-H4

LED Color Options:

Part No.	Color	Dominant Wavelength λ_D Typ.(nm)	Luminous Intensity I_v (mcd)	Forward Voltage V_F (V)		View Angle $2\theta_{1/2}$ (Degree)
			Typ.	Typ.	Max.	
B	Blue	470	70	3.0	3.6	140°
PG	Pure Green	520	160	3.2	3.6	
G	Yellow Green	570	30	2.0	2.3	
Y	Yellow	590	60	2.0	2.3	
A	Soft Orange	605	50	2.0	2.3	
R	Red	630	60	2.0	2.3	
W	Cold White	X:0.30 / Y:0.30	350	3.0	3.6	



P.C.B. LAYOUT

NOTE :

	CAP	
	MARK	COLOR
S1	⏻	SILVER
K1		BLACK
S3	RESET	SILVER
K3		BLACK
SA	—	SILVER
KA		BLACK

ILLUMINATED SWITCH ML6-H5 SERIES

Tact Switch
Illuminated



FEATURES

- ※Customized cap options
- ※Bi-color LED available
- ※Long operating life

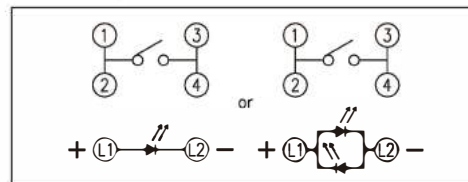
APPLICATION

- ※Sever, modem, data storage
- ※Audio module
- ※Office equipment

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf
Travel	0.25mm
Operating Life	300, 000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

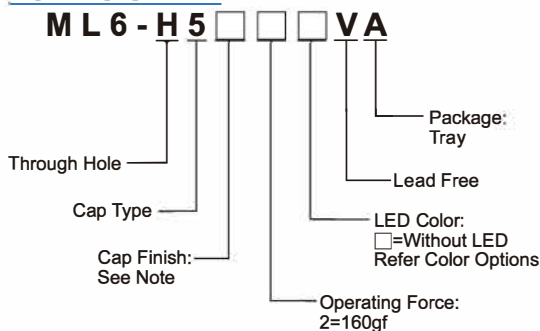
CIRCUIT



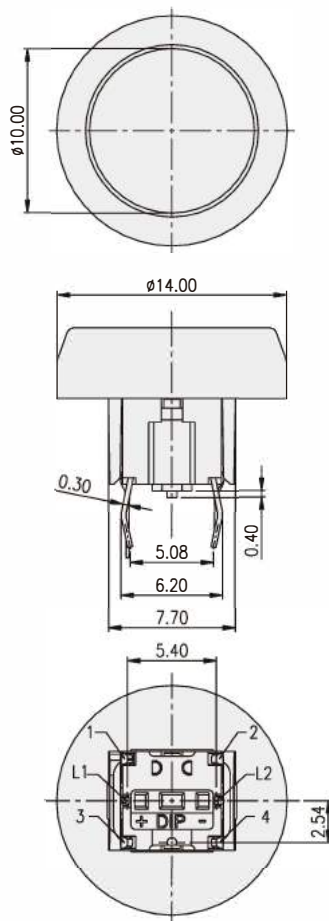
PACKAGE

<Tray>
100 pcs.

HOW TO ORDER

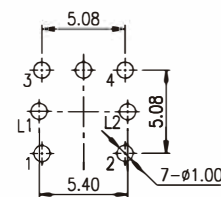
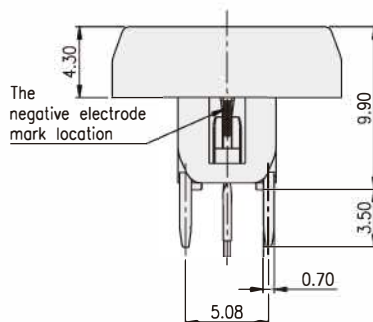


ML6-H5



LED Color Options:

Part No.	Color	Dominant Wavelength λ_p Typ.(nm)	Luminous Intensity I_v (mcd)	Forward Voltage V_F (V)		View Angle $2\theta_{1/2}$ (Degree)
			Typ.	Typ.	Max.	
B	Blue	470	70	3.0	3.6	140°
PG	Pure Green	520	160	3.2	3.6	
G	Yellow Green	570	30	2.0	2.3	
Y	Yellow	590	60	2.0	2.3	
A	Soft Orange	605	50	2.0	2.3	
R	Red	630	60	2.0	2.3	
W	Cold White	X:0.30 / Y:0.30	350	3.0	3.6	



P.C.B. LAYOUT

NOTE :

	CAP	
	MARK	COLOR
R4	START	RED

ILLUMINATED SWITCH ML6-H6 SERIES

Tact Switch
Illuminated



ILLUMINATED SWITCH



ML6-H6K

FEATURES

- ※Customized cap options
- ※Bi-color LED available
- ※Long operating life

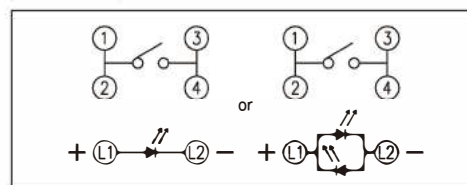
APPLICATION

- ※Sever, modem, data storage
- ※Audio module
- ※Office equipment

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	180±50gf
Travel	0.25mm
Operating Life	300, 000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

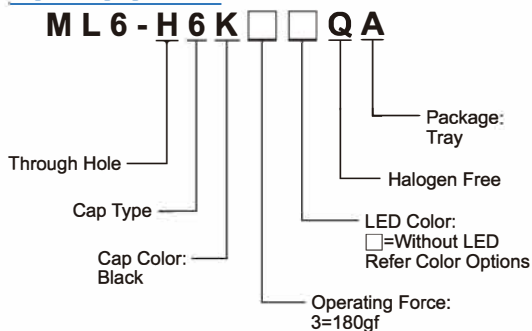
CIRCUIT



PACKAGE

<Tray>
100 pcs.

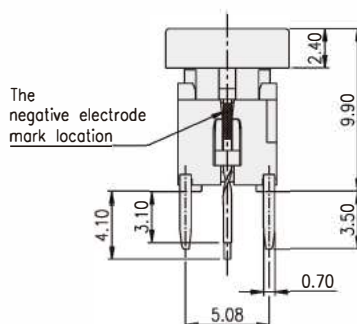
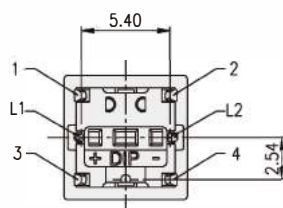
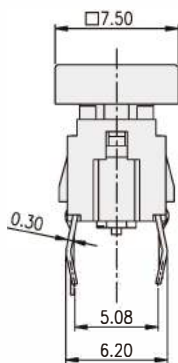
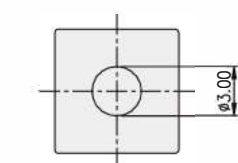
HOW TO ORDER



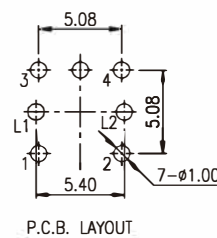
ML6-H6

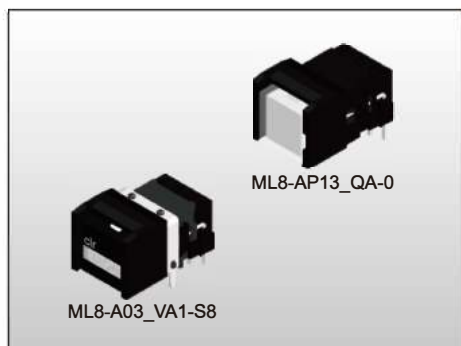
LED Color Options:

Part No.	Color	Dominant Wavelength λ_p Typ.(nm)	Luminous Intensity I_v (mcd)	Forward Voltage V_F (V)		View Angle $2\theta_{1/2}$ (Degree)
			Typ.	Typ.	Max.	
B	Blue	470	70	3.0	3.6	140°
PG	Pure Green	520	160	3.2	3.6	
G	Yellow Green	570	30	2.0	2.3	
Y	Yellow	590	60	2.0	2.3	
A	Soft Orange	605	50	2.0	2.3	
R	Red	630	60	2.0	2.3	
W	Cold White	X:0.30 / Y:0.30	350	3.0	3.6	



The negative electrode mark location





FEATURES

- ※Push to lock option
- ※Long stroke
- ※Options of different cap color & mark

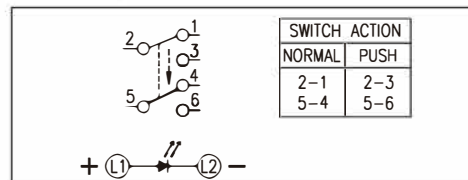
APPLICATION

- ※Audio device
- ※Office equipment
- ※Communication apparatus

SPECIFICATION

Contact Rating	0.1A, 30V DC
Contact Resistance	50mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	250±100gf
Travel	1.5mm
Operating Life	10, 000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

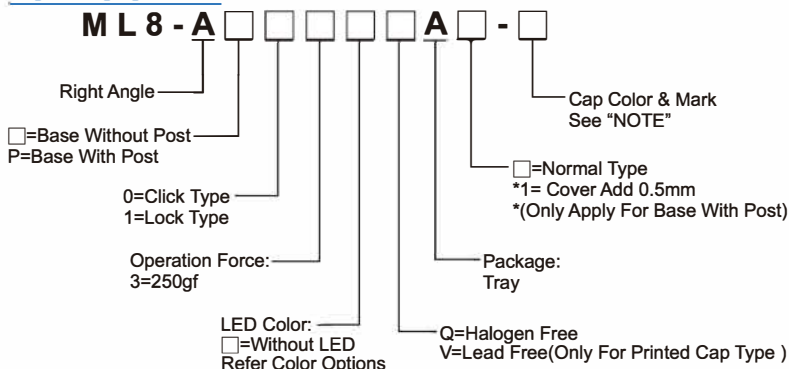
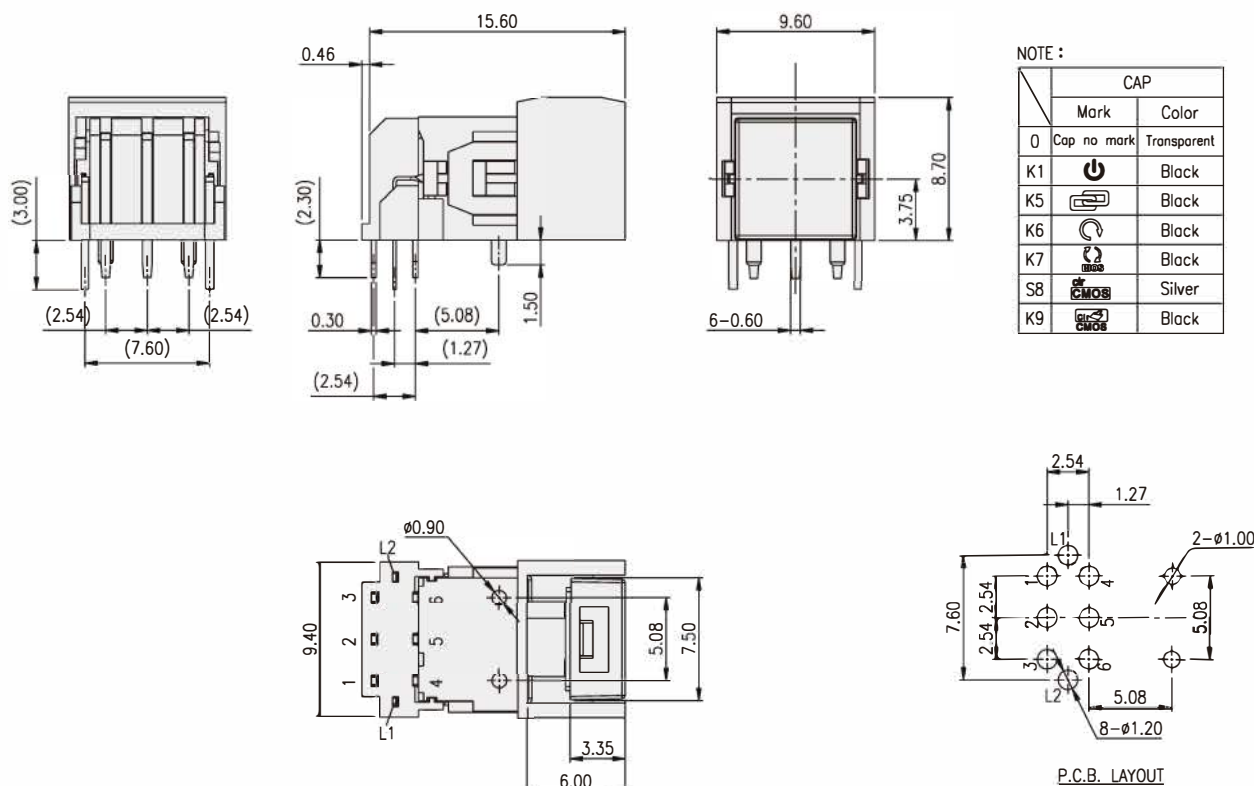
CIRCUIT



PACKAGE

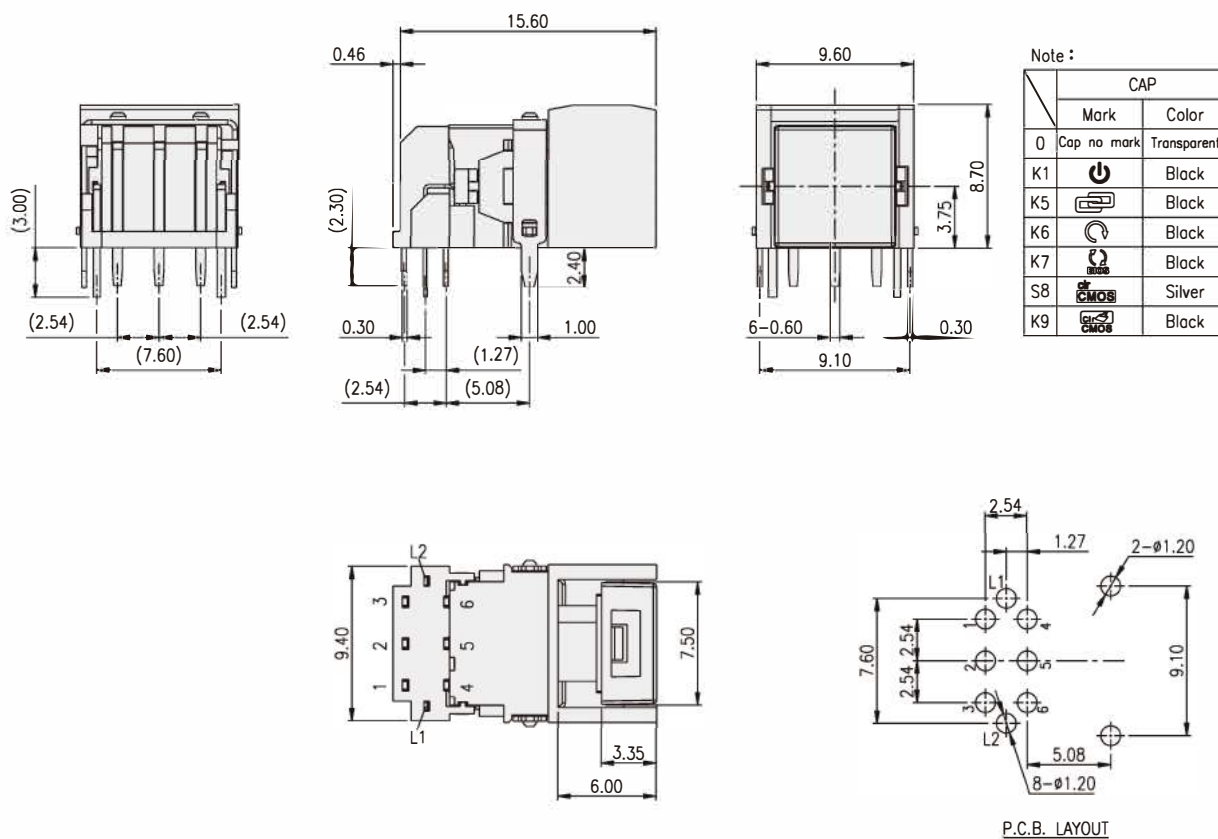
<Tray>
120 pcs.

HOW TO ORDER

ML 8 - A**ML8-AP13**

ML8-A03

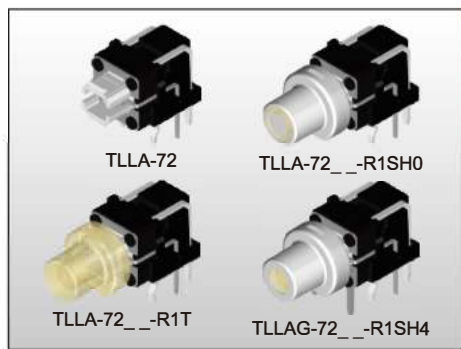
ILLUMINATED SWITCH

**LED Color Options:**

Part No.	Color	Dominant Wavelength λ_p Typ.(nm)	Luminous Intensity I_v (mcd)	Forward Voltage V_F (V)		View Angle $2\theta_{1/2}$ (Degree)
			Typ.	Typ.	Max.	
B	Blue	470	70	3.0	3.6	140°
PG	Pure Green	520	160	3.2	3.6	
G	Yellow Green	570	30	2.0	2.3	
Y	Yellow	590	60	2.0	2.3	
A	Soft Orange	605	50	2.0	2.3	
R	Deep Red	640	25	2.0	2.3	
W	Cold White	X:0.30 / Y:0.30	350	3.0	3.6	

ILLUMINATED SWITCH TL(L)A(G)-7 SERIES

**Tact Switch
Illuminated**



FEATURES

- ※Horizontal operation
- ※Various LED colors
- ※Options of different cap color & mark

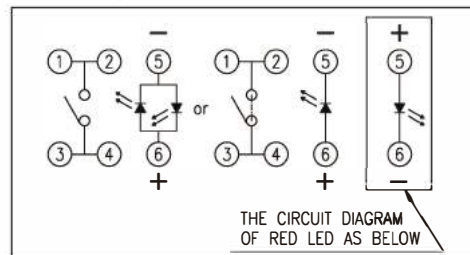
APPLICATION

- ※Automotive
- ※Server
- ※Laptop, IPC

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf / 260±50gf
Travel	0.2mm
Operating Life	500,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

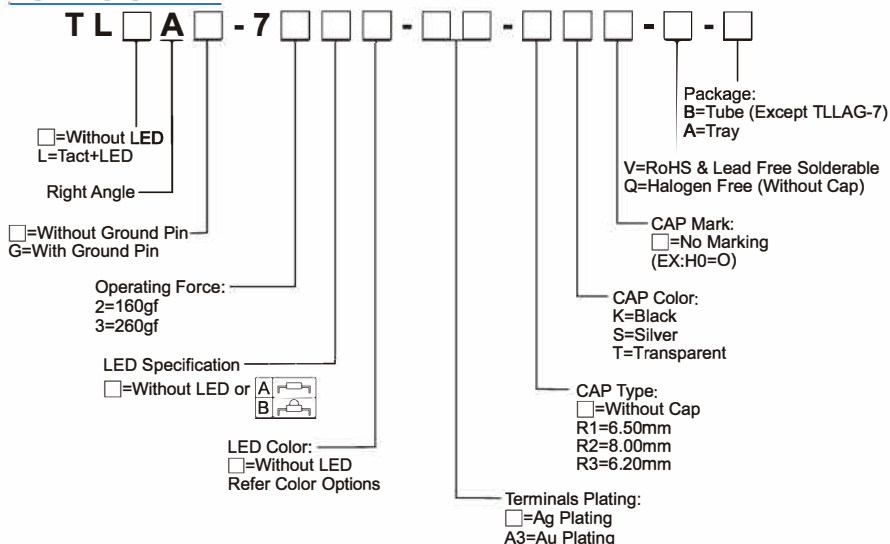
CIRCUIT



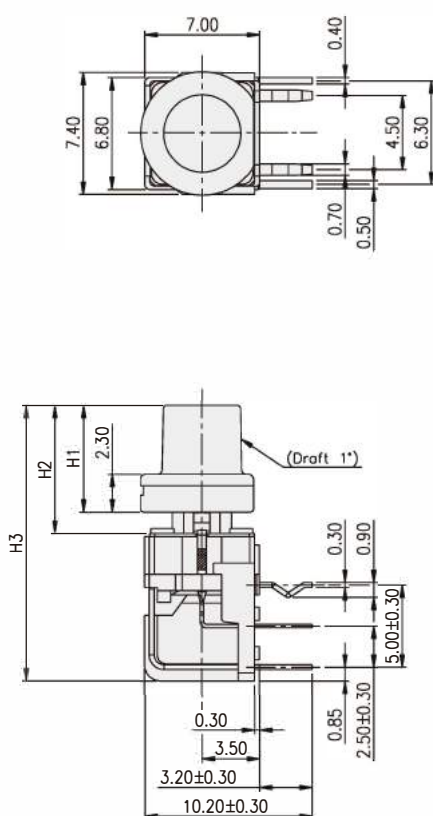
PACKAGE

<Tray>
TLLA-7□-A: 100 pcs.
<Tube>
TLLA-7□-B: 64 pcs.

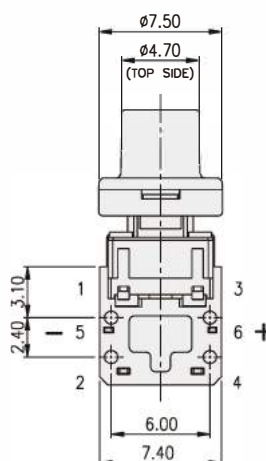
HOW TO ORDER



TLLA-72□□-R□

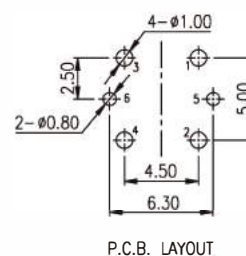


PART NO.	H1	H2	H3
TLLA-7□□□-□-R1□	6.50	7.80	16.80
TLLA-7□□□-□-R2□	8.00	9.30	18.30
TLLA-7□□□-□-R3□	6.20	7.50	16.50



NOTE :

	CAP		CAP
	MARK		MARK
H0	○	H8	⦿
H1	⏻	H9	⦿
H2	⦿	HA	⦿
H3	⦿	HB	⦿
H4	●	HC	⦿
H7	⏻		



P.C.B. LAYOUT

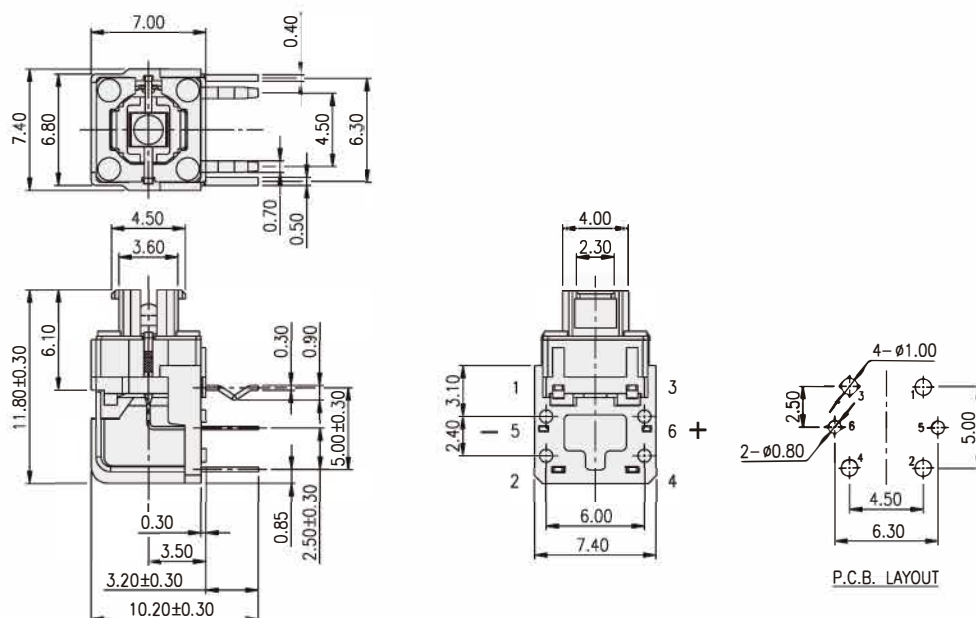
ILLUMINATED SWITCH TL(L)A(G)-7 SERIES

Tact Switch
Illuminated

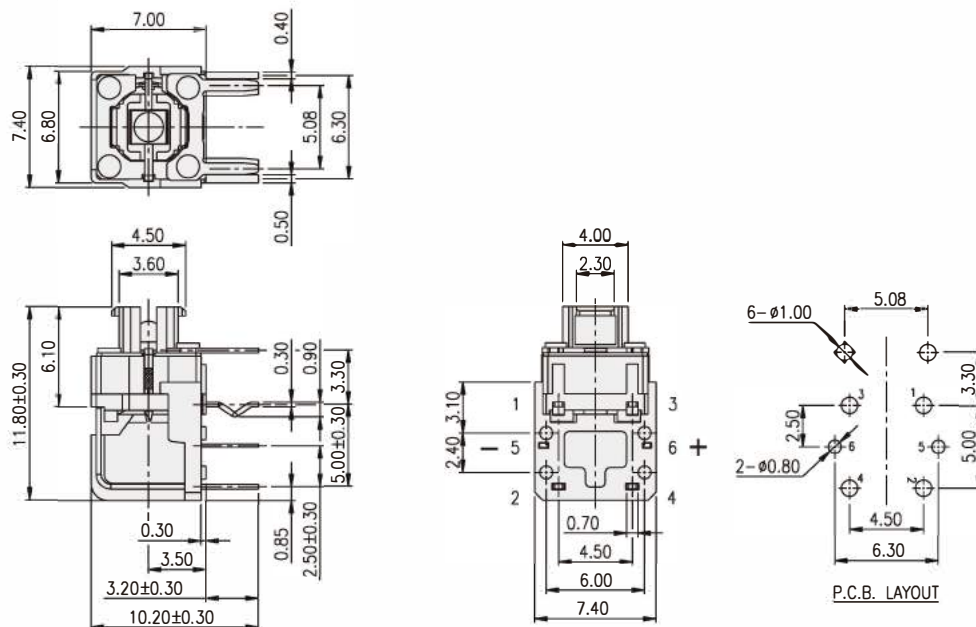


ILLUMINATED SWITCH

TLLA-72

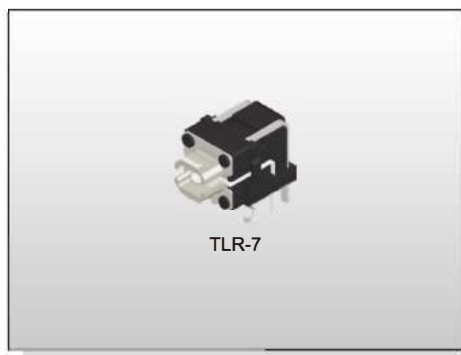


TLLAG-7



LED Color Options:

Part No.	Color	Dominant Wavelength λ_p Typ.(nm)	Luminous Intensity I_v (mcd)		Forward Voltage V_f (V)		View Angle $2\theta_{1/2}$ (Degree)	
			Typ.		Typ.	Max.	A	B
			A	B				
B	Blue	470	70	1100	3.0	3.6	140°	30°
PG	Pure Green	520	160	2500	3.2	3.6		
G	Yellow Green	570	30	550	2.0	2.3		
Y	Yellow	590	60	1500	2.0	2.3		
A	Soft Orange	605	50	1500	2.0	2.3		
R	Deep Red	640	25	800	2.0	2.3		
W	Cold White	X:0.30 / Y:0.30	350	550	3.0	3.6		



FEATURES

- ※Horizontal operation
- ※Various LED colors

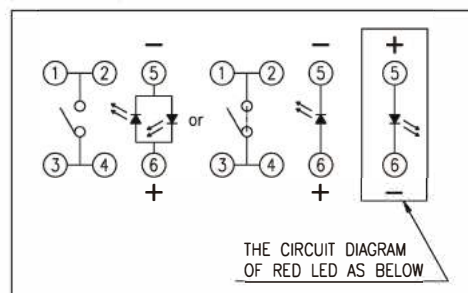
APPLICATION

- ※Automotive
- ※Server
- ※Laptop, IPC

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf / 260±50gf
Travel	0.2mm
Operating Life	500,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

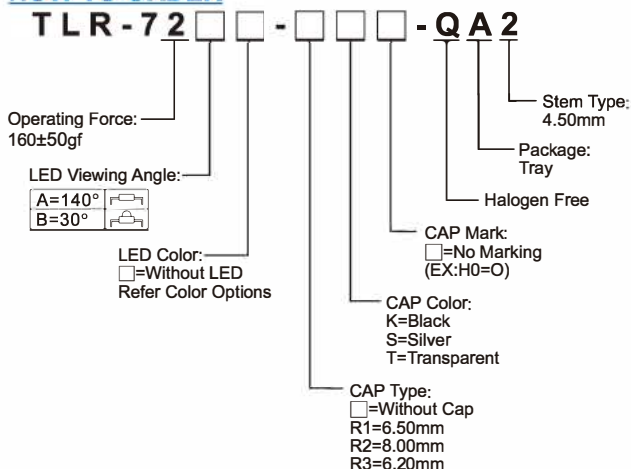
CIRCUIT



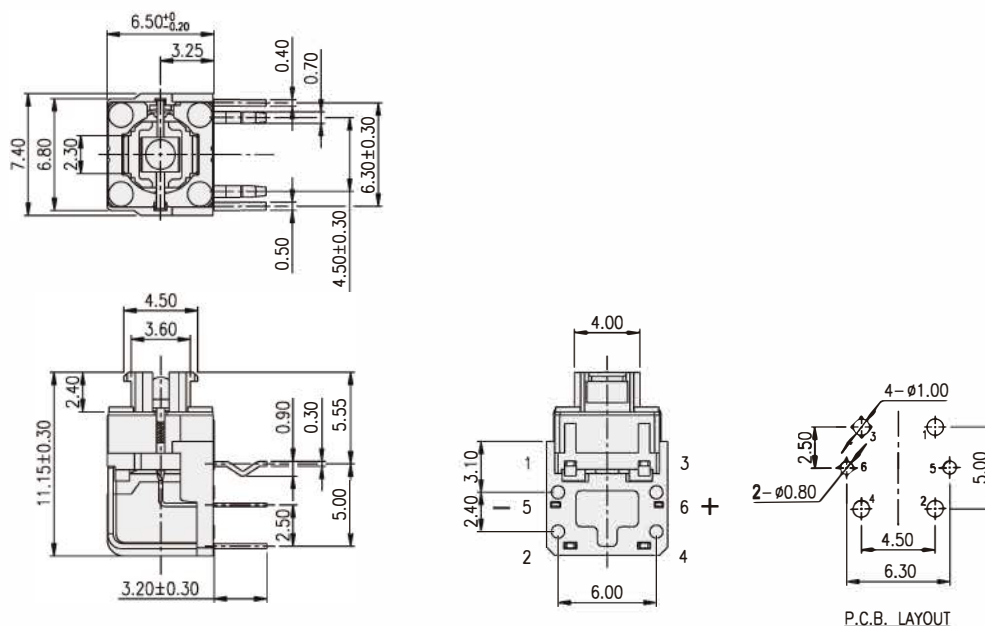
PACKAGE

<Tray>
100 pcs.

HOW TO ORDER



TLR-7



LED Color Options:

Part No.	Color	Dominant Wavelength λ_p Typ.(nm)	Luminous Intensity I_v (mcd)		Forward Voltage V_F (V)		View Angle $2-\theta_{1/2}$ (Degree)	
			Typ.		Typ.	Max.	A	B
B	Blue	470	70	1100	3.0	3.6	140°	30°
PG	Pure Green	520	160	2500	3.2	3.6		
G	Yellow Green	570	30	550	2.0	2.3		
Y	Yellow	590	60	1500	2.0	2.3		
A	Soft Orange	605	50	1500	2.0	2.3		
R	Deep Red	640	25	800	2.0	2.3		
W	Cold White	X:0.30 / Y:0.30	350	550	3.0	3.6		



HOW TO ORDER

TL ☐ ☐ **- 6** ☐ ☐ ☐ **- S -** ☐ ☐ ☐

☐=Without LED
L=Tact Switch+LED

☐=Through Hole
M=S.M.T.

Operating Force:
1=100gf, Black 2=160gf, Brown
3=260gf, White 5=520gf, Salmon

Package:
B=Tube
T/R=Tape & Reel
(Only For S.M.T.)

V=RoHS & Lead Free Solderable
Q=Halogen Free

T=Tape
☐=Without Tape

Super Light

LED Specification:

A	
B	

LED Color:
Please Refer To The Attached LED Spec

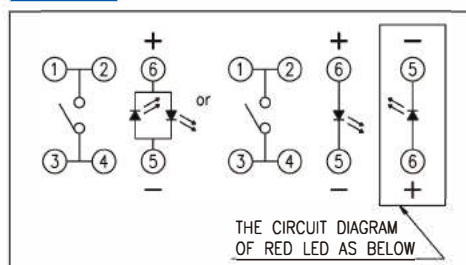
LED Color Options:

Part No.	Color	Dominant Wavelength λ_d Typ.(nm)	Luminous Intensity I_v (mcd)		Forward Voltage V_f (V)		View Angle $2-\theta_{1/2}$ (Degree)	
			Typ.		Typ.	Max.	A 	B 
			A 	B 				
B	Blue	 470	70	1100	3.0	3.6	140°	30°
PG	Pure Green	 520	160	2500	3.2	3.6		
G	Yellow Green	 570	30	550	2.0	2.3		
Y	Yellow	 590	60	1500	2.0	2.3		
A	Soft Orange	 605	50	1500	2.0	2.3		
O	Red Orange	 620	80	3000	2.0	2.3		
R	Red	 630	60	1000	2.0	2.3		
W	Cold White	X:0.30 / Y:0.30	350	550	3.0	3.6		

SPECIFICATION

Contact Rating	50mA, 12V DC	
Contact Resistance	100mΩ max.	
Insulation Resistance	100MΩ min. 500V DC	
Dielectric Strength	250V AC/1 minute	
Operating Force	100±50gf	TL(L)-61
	160±50gf	TL(L)-62
	260±50gf	TL(L)-63
	520±130gf	TL(L)-65
Travel	0.2mm	
Operating Life	200, 000 cycles for 520/260gf 500, 000 cycles for 160/100gf	
Operating Temp.	-25°C ~ +70°C	
Storage Temp.	-30°C ~ +80°C	

CIRCUIT

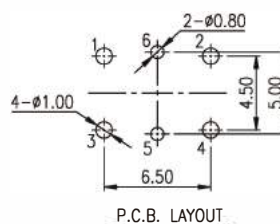
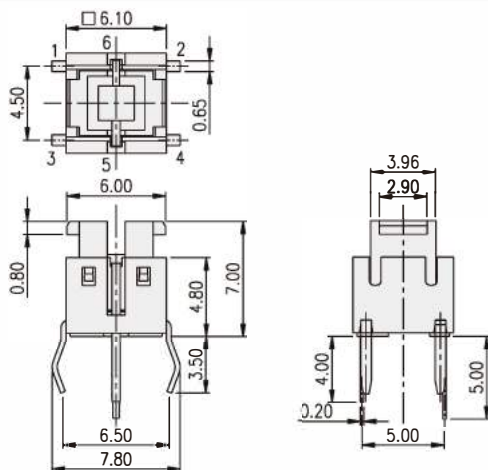
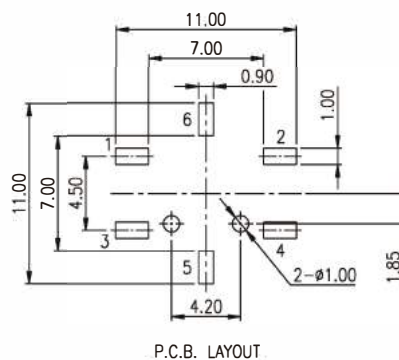
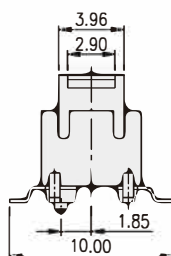
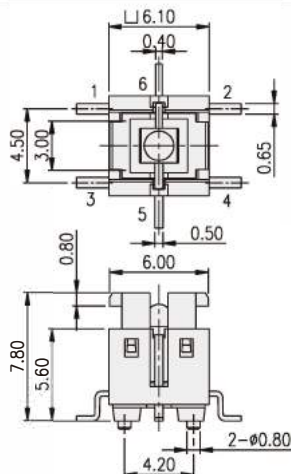


PACKAGE

<Tube>
75 pcs. (Only for TLL-6)

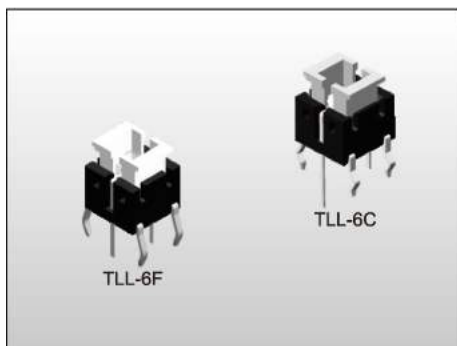
<Tape & Reel>
450 pcs. (Only for TLLM-6)

TLL-6 ☐ **A**

**TLLM-6** ☐ **B**

ILLUMINATED SWITCH TL(L)(M)-6 SERIES

**Tact Switch
Illuminated**



FEATURES

- ※Super bright LED
- ※Various LED colors
- ※Options of different cap color

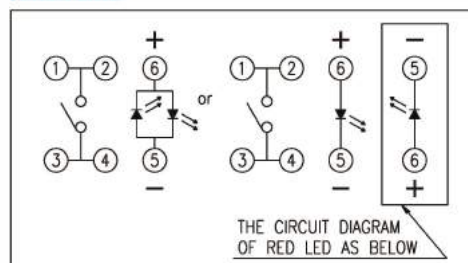
APPLICATION

- ※Server
- ※Laptop, IPC
- ※Set-top box

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	100±50gf TL(L)-61 160±50gf TL(L)-62 260±50gf TL(L)-63
Travel	0.2mm
Operating Life	200,000 cycles for 260gf 500,000 cycles for 160/100gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

CIRCUIT



PACKAGE

<Tube>
75 pcs.

HOW TO ORDER

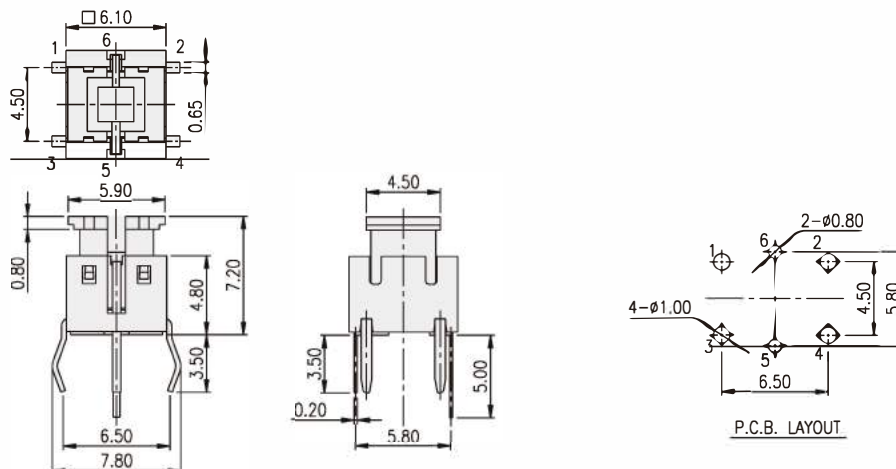
T L L - 6 **- Q - B**

Tact Switch+LED
Operating Force:
1=100gf, White
2=160gf, White
3=260gf, White
Package:
Tube
Halogen Free
LED Color:
Please Refer To The Attached LED Spec
LED Pitch=5.80mm & Body H:7.20mm
LED Pitch=5.00mm & Body H:7.20mm

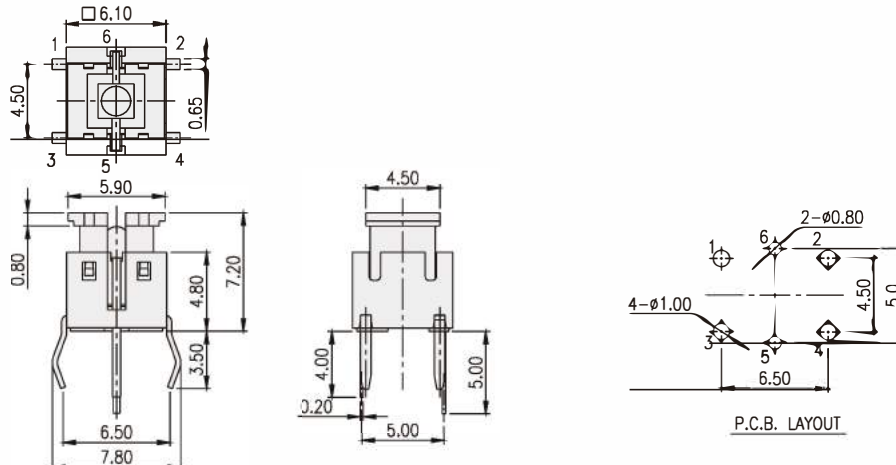
LED Color Options:

Part No.	Color	Dominant Wavelength Typ.(nm)	Luminous Intensity I _v (mcd)		Forward Voltage V _f (V)		View Angle 2-θ _{1/2} (Degree)	
			Typ.	Typ.	Typ.	Max.	C, E, D, F	C, E, D, F
B	Blue	470	70	1100	3.0	3.6	140°	30°
PG	Pure Green	520	160	2500	3.2	3.6		
G	Yellow Green	570	30	550	2.0	2.3		
Y	Yellow	590	60	1500	2.0	2.3		
A	Soft Orange	605	50	1500	2.0	2.3		
O	Red Orange	620	80	3000	2.0	2.3		
R	Red	630	60	1000	2.0	2.3		
W	Cold White	X:0.30 / Y:0.30	350	550	3.0	3.6		

TLL-6 C



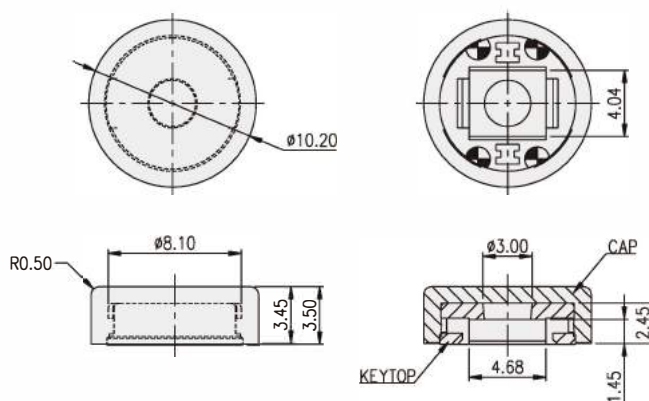
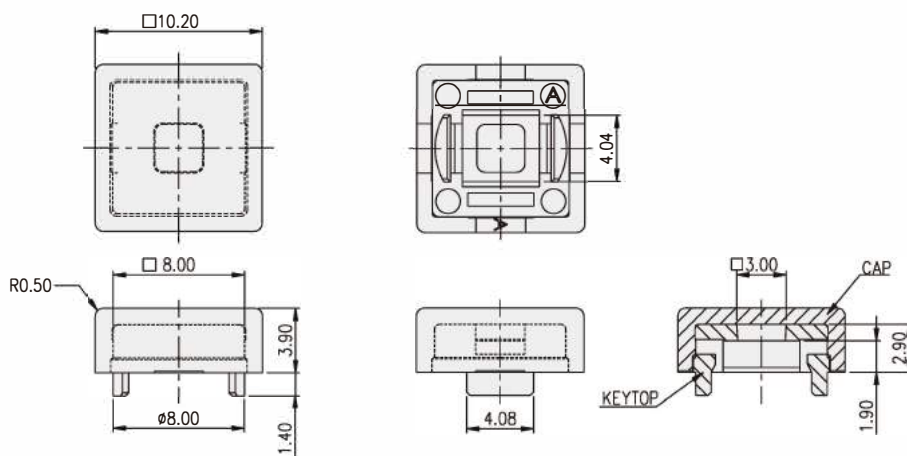
TLL-6 F



**HOW TO ORDER****KTL - ☐ A ☐**R=Round
S=SquareColor:
Y=Yellow
B=Blue
R=Red
I=Ivory
K=Black
G=Green
S=SalmonRound 10.20mm or
Square 10.20mm**PACKAGE**

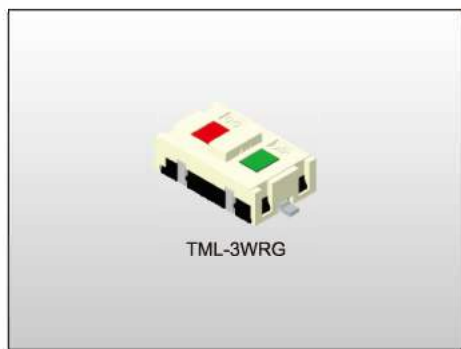
<Bag>

500 pcs.

KTL-RA**KTL-SA**

ILLUMINATED SWITCH TML-3 SERIES

**Tact Switch
Illuminated**



FEATURES

- ※ Compact size
- ※ Bi-color LED light
- ※ Sharp click feeling

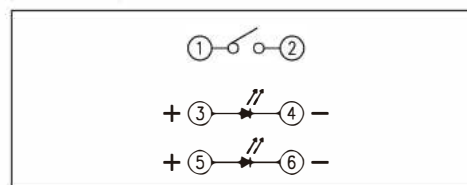
APPLICATION

- ※ Testing equipment
- ※ Industrial device
- ※ Automation

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160+80/-30gf
Travel	0.2mm
Operating Life	50,000 cycles
Operating Temp.	-20°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

CIRCUIT

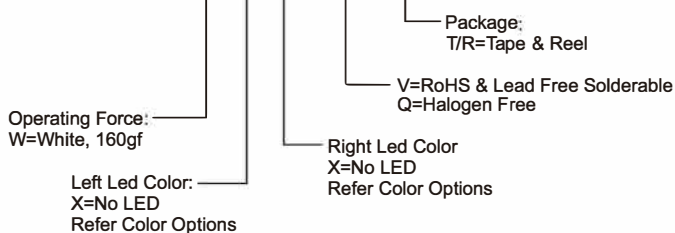


PACKAGE

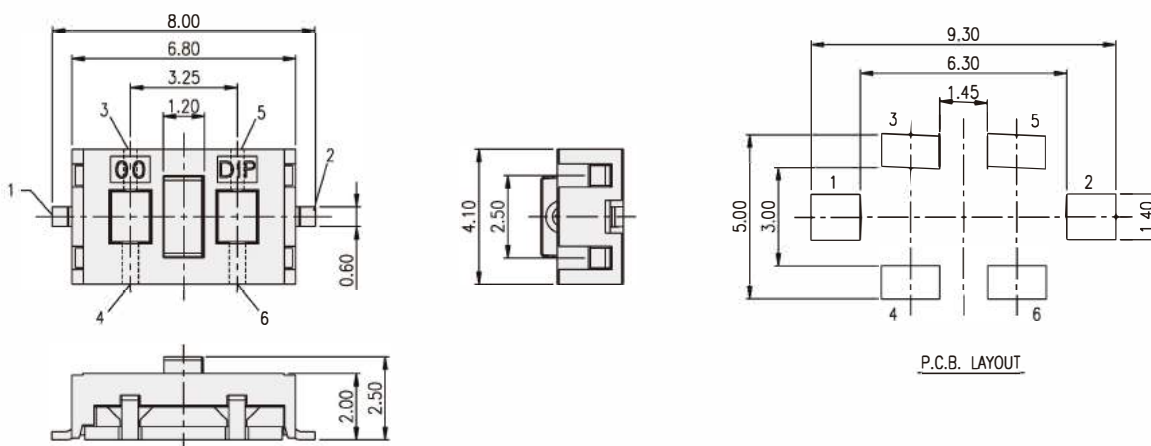
<Tape & Reel>
3000 pcs.

HOW TO ORDER

T M L - 3 W



TML-3



LED Color Options:

Part No.	Color	Dominant Wavelength λ_p Typ.(nm)	Luminous Intensity I_v (mcd)	Forward Voltage V_F (V)		View Angle $2\cdot\theta_{1/2}$ (Degree)
			Typ.	Typ.	Max.	
B	Blue	470	70	3.0	3.6	140°
G	Yellow Green	570	30	2.0	2.3	
O	Yellow	590	60	2.0	2.3	
A	Soft Orange	605	50	2.0	2.3	
R	Red	630	60	2.0	2.3	
W	Cold White	X:0.30 / Y:0.30	350	3.0	3.6	



EL.ITALIA SRL

www.dip.com.tw
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F 02.26261009 www.elitaliaweb.it



HOW TO ORDER

ZPA - - - - - L -

S6=Off-(On)
S7=On-(Off)
L6=Off-On

Bushing: _____
 B1=Snap-in
 B2=Threaded Bushing
 B3=Snap-in
 D1=Square Threaded Bushing(die-casting)
 D2=Threaded Bushing(die-casting)
 D6=Square Threaded Bushing(plastic case)

Terminations: _____
M1=Solder Lug
M4=PC Through Hole(ZPAS6 Only)
M3=8.20 Solder Lug(ZPAS6 Only)
L1=Wire

Contact Material: —
C=Gold Over Silver

Seal: _____
E=EPOXY(std)

Led Color:
1=White
3=Red
5=Yellow
6=Green
7=Blue

Additional Hardware

Cap Color:
1=White
2=Black
3=Red
4=Orange
5=Yellow
6=Green
7=Blue

-S=RoHS & Lead Free Solderable

FEATURES

- ✖ Do not have wear and damage problem by pressed contact structure
- ✖ Shock resistant switch, withstands harsh environments, Available in aluminum and plastic housings

APPLICATION

- ✖ Lighting, Computer peripherals
- ✖ Communication
- ✖ Medical equipment.
- ✖ IPC, Marine

SPECIFICATION

Contact Rating	400mA 32VAC-100mA 50VDC-125mA 125VAC	ZPA S6/S7
	500mA 48VAC-200mA 50VDC-200mA 250VAC	
	100mA 24VDC 2A 125VAC	ZPA L6
Contact Resistance	50mΩ max.	
Insulation Resistance	1GΩ min. 500VDC	
Dielectric Strength	1,000VAC rms. 1,500VAC rms. for metal material.	
Operating Force	2N~5N	
Travel	1.5mm	ZPA S6/S7
	2.5mm	ZPA L6
Operating Life	500, 000 cycles	ZPA S6/S7
	200, 000 cycles(100mA, 24VDC)	ZPA L6
	10, 000 cycles(2A, 125VAC)	
Operating Temp.	-30°C ~ +85°C	

CIRCUIT

Model No.	POS.1	POS.2
		
PAL6	OFF	ON
Term. Comm.	OPEN	1-3
SCHEMATIC		

PACKAGE

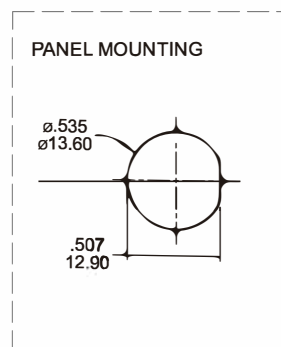
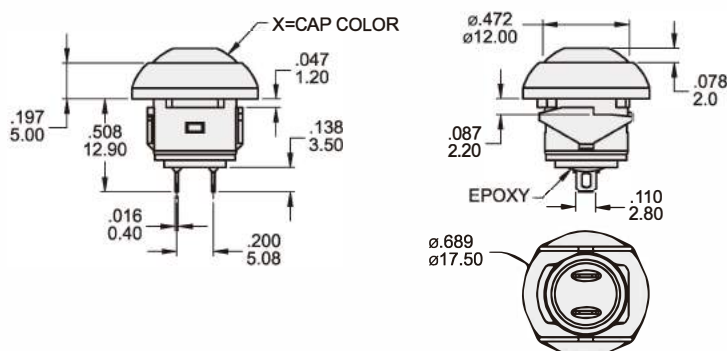
<Tray>
50 pcs.

SWITCH FUNCTION

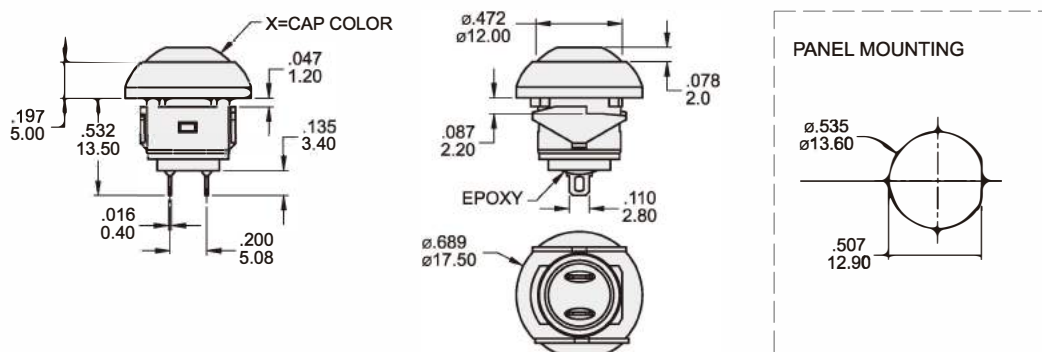
NO. POLES	MODEL NO.	SWITCH FUNCTION		CONNECTED TERMINALS		
		POS.1	POS.2	POS.1	POS.2	SCHEMATIC
						
SP	ZPAS6	OFF	ON	OPEN	1-3	
SP	ZPAS7	ON	OFF	1-3	OPEN	
SP	ZPAL6	OFF	ON	OPEN	1-3	

MOM=MOMENTARY

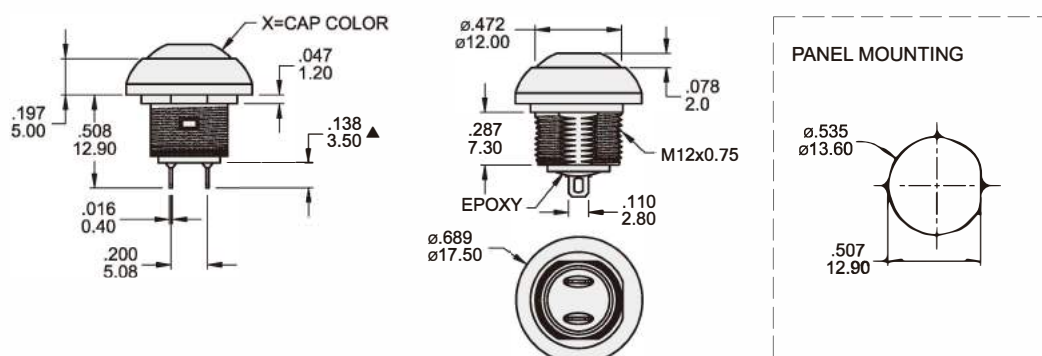
ZPAS6B1M1CESX-5



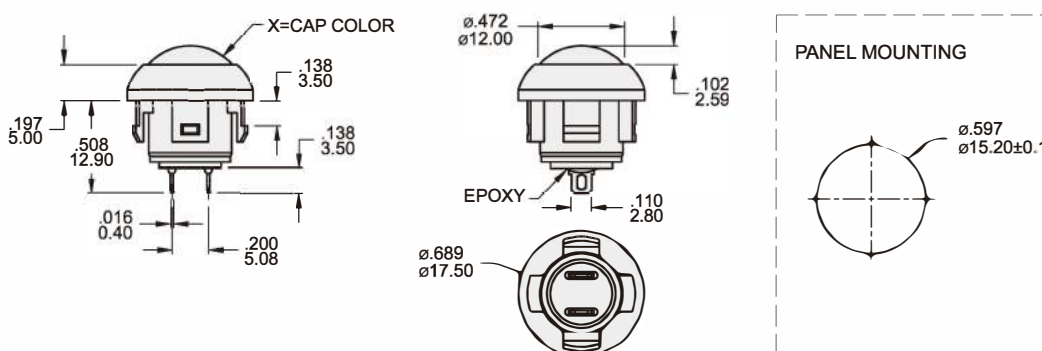
ZPAS7B1M1CESX-5



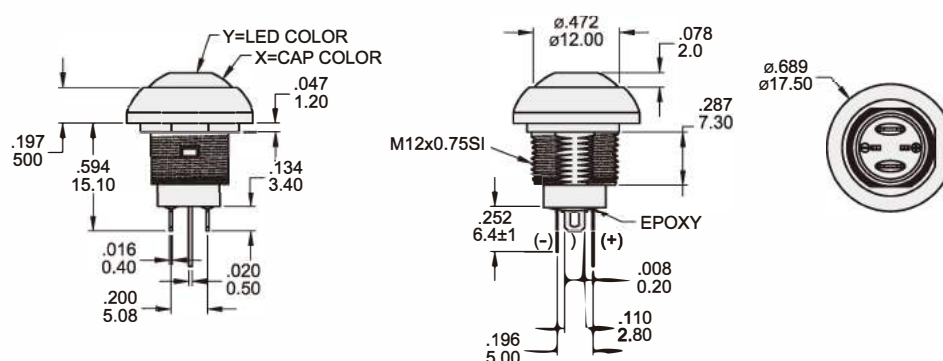
ZPAS6B2M1CESX-5



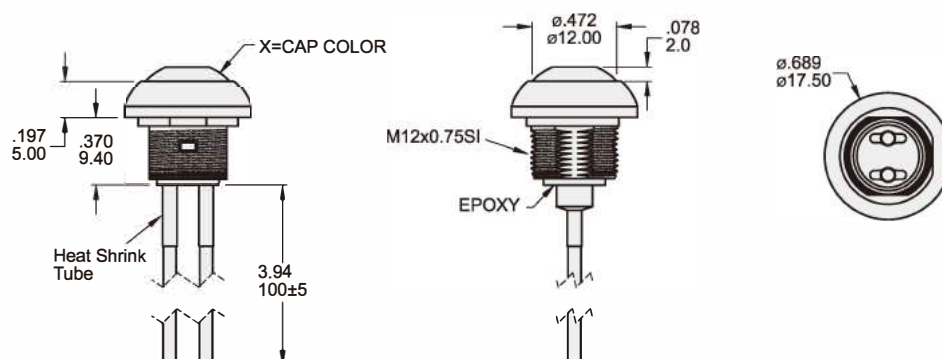
ZPAS6B3M1CESAX-5



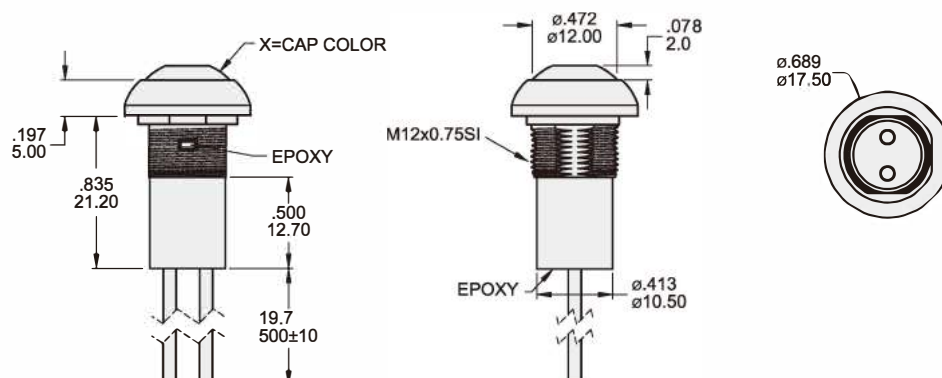
ZPAS6B2M1CESX-5LY



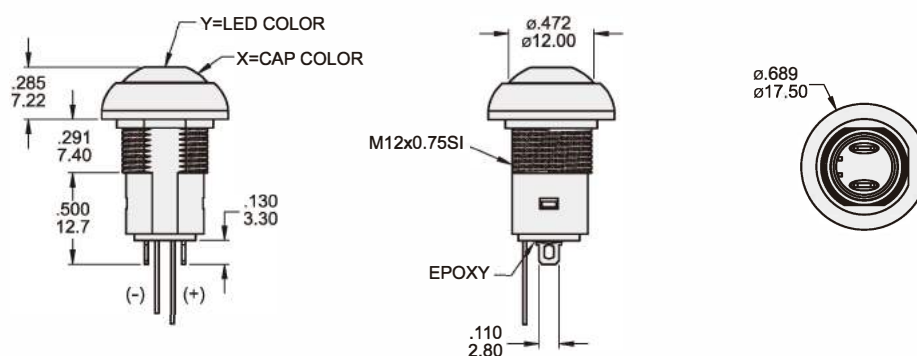
ZPAS6B2L3CESX-5



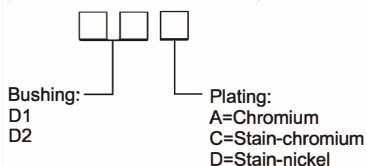
ZPAS6B2L1CASX-5



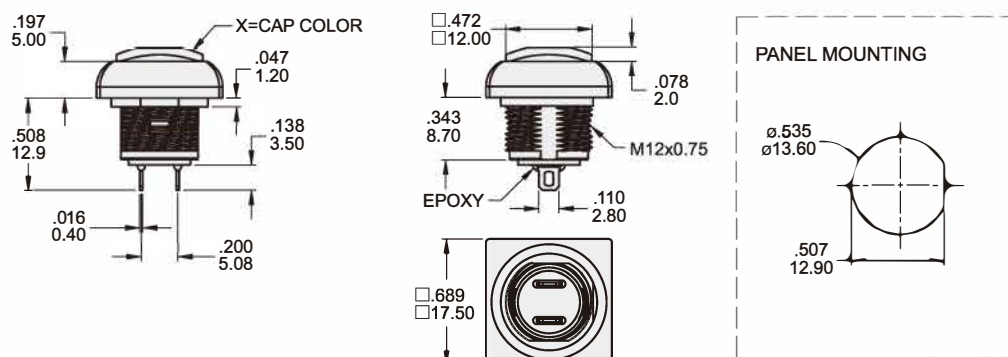
ZPAL6B2M1CESX-5LY



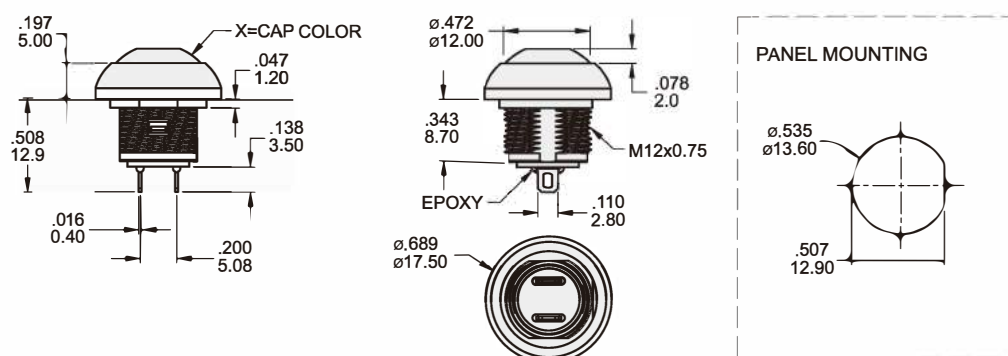
SWITCH FUNCTION



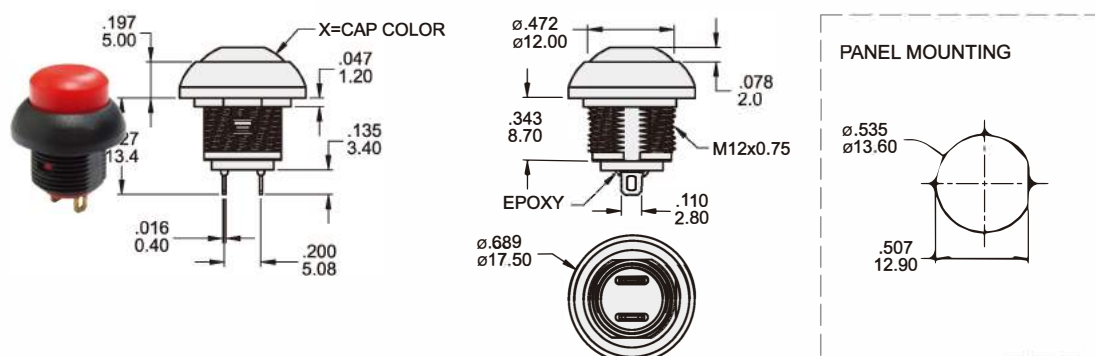
ZPAS6D1M1CESX-5



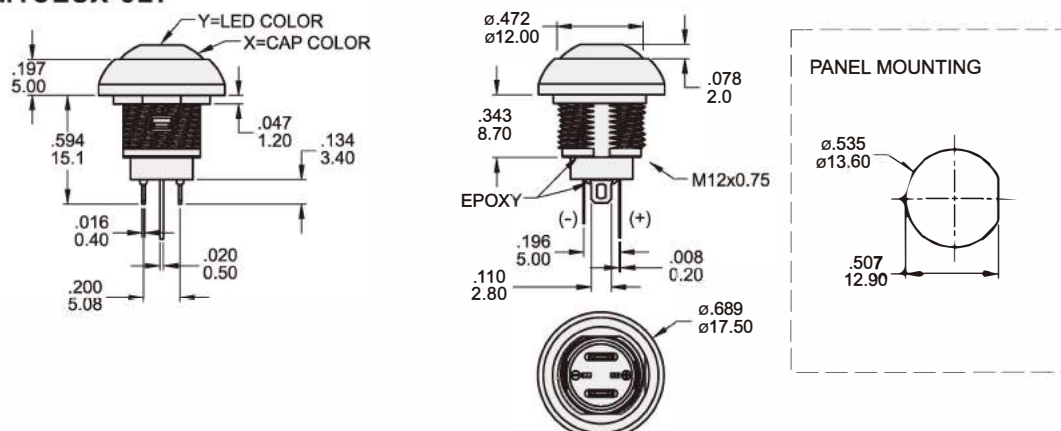
ZPAS6D2M1CESX-5

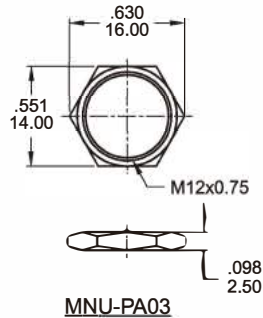
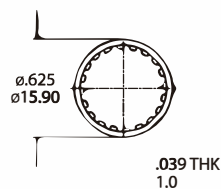
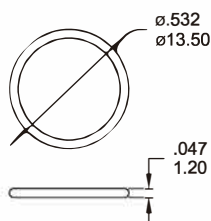
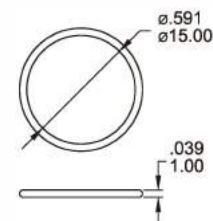
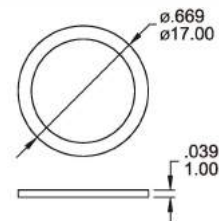


ZPAS7D2M1CESX-5



ZPAS6D2M1CESX-5LY



HARDWARE**M12 NUT****LOCK WASHER**Supplied with B2 / D1 / D2
bushing**O-RING**Supplied with PAL6 and
D1 / D2 options**O-RING**Supplied standard with
B3 options**EVA WASHER**Supplied standard with
B1 / B2 options**SOLDERING PROCESSES**

MANUAL SOLDERING: Use soldering iron of 30 watts, controlled at 350°C approximately 5 seconds while applying solder.

WAVE SOLDERING:

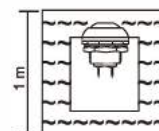
Recommended Soldering Temperature: 260 ± 5°C

Duration of Solder Immersion: Max 5 sec.

(PCB is 1.6mm in thickness)

IP 67 for the whole series:

Protected against the effects of immersion up to 1 m water(30min)





FEATURES

- ※ Small size
- ※ Long electrical life
- ※ High brightness LED. Button surface are illuminated and even

APPLICATION

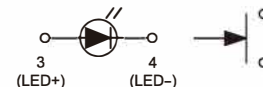
- ※ Automotive industry
- ※ Office appliance
- ※ Computer products
- ※ Communication equipments
- ※ Audio equipment

SPECIFICATION

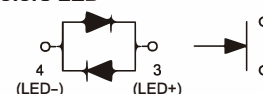
Contact Rating	0.1A, 30V DC
Contact Resistance	50mΩ max. 1.5V DC; 100mA, by Method of Voltage DROP
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	250±100gf
Travel	1.2mm
Operating Life	50,000 cycles
Operating Temp.	-40°C ~ +85°C

CIRCUIT

Single LED



Dual Colors LED



PACKAGE

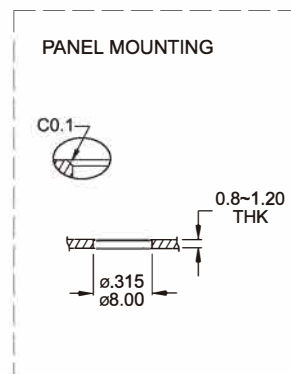
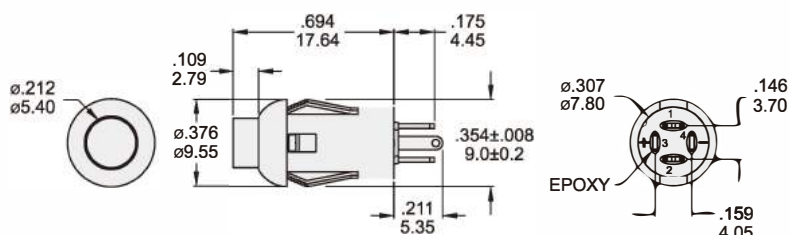
<Bag>
100 pcs.

HOW TO ORDER

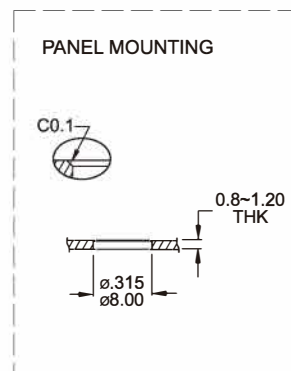
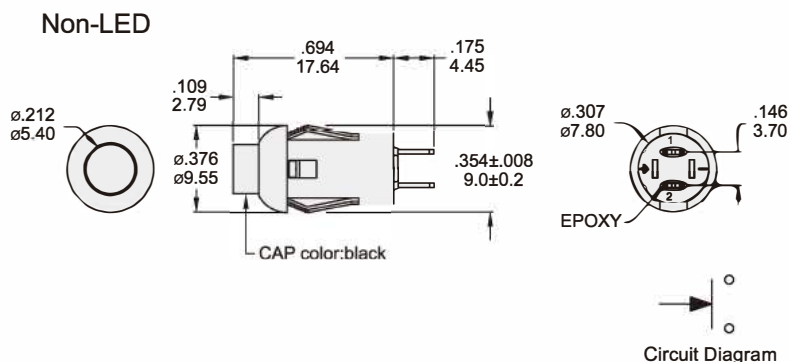
Z P B L -

Led Color:
01=White
03=Red
05=Yellow
06=Green
07=Blue
76=Blue(Green)

ZPBL-XX



ZPBL-A2



ILLUMINATED SWITCH

ZPSD SERIES

Pushbutton Switches

Illuminated



FEATURES

- ✘ Small size
- ✘ Long electrical life

APPLICATION

- ✘ Audio equipment
- ✘ Consumer products
- ✘ Instrumentation

HOW TO ORDER

Z P S D - - + C A P

Function:
7=On-Mom

Led Color:
0=Without LED
3=Red
6=Green
1=White
5=Yellow
7=Blue

CAP OPTION				
DIMENSION				
COLOR	CAP CODE			
TRANSPARENT	—	H	—	—
ICE	—	—	G	D
SNOW	—	—	—	F
WHITE	C	B	—	—

SPECIFICATION

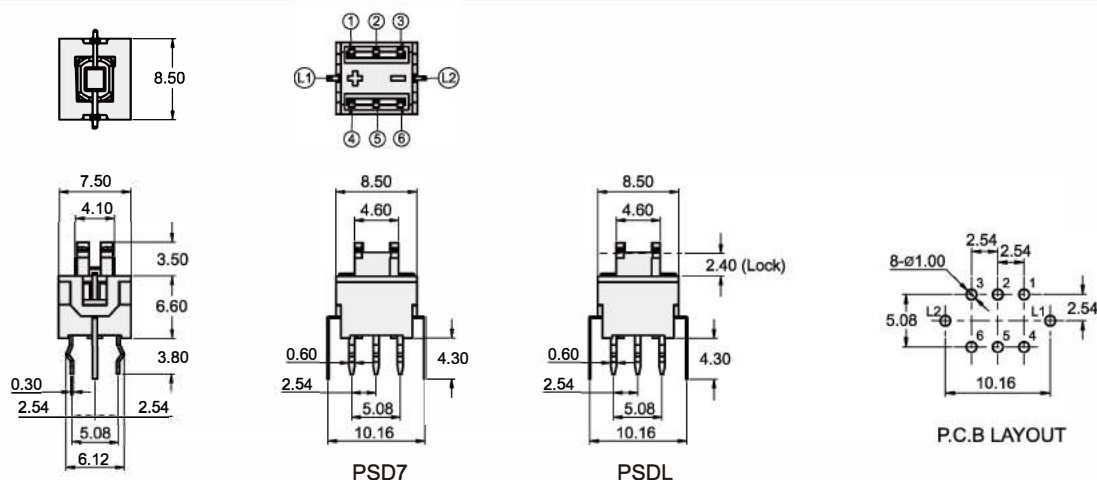
Contact Rating	0.1A, 30V DC MAX 100mA, 1.5V DC MIN
Contact Resistance	50mΩ max.
Insulation Resistance	100MΩ min.
Dielectric Strength	500V AC/1 minute
Operating Force	250±100gf
Travel	1mm (Contact Travel) 1.5mm (Full Travel)
Operating Life	50, 000 cycles
Operating Temp.	-20°C ~ +70°C

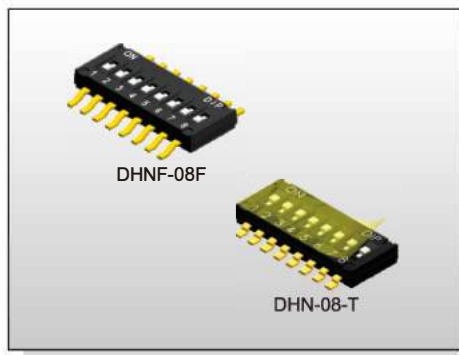
CIRCUIT

Type	Switch Action	
ZPSD7	Normal ON	Push(ON)
ZPSDL	Normal ON	LOCK(ON)
Connected Terminals	1-2 4-5	2-3 5-6
LED Circuit	L1 → → L2	

PACKAGE

<Tray>
96 pcs.





FEATURES

- ※Low profile 1.6mm height
- ※Gold contact for high reliability
- ※Top tape type for washing process

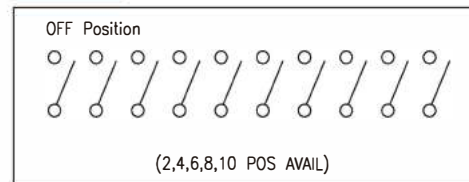
APPLICATION

- ※Industrial control
- ※Automatic machines control
- ※NB, electronic devices

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	300V AC/1 minute
Operating Force	500gf max.
Travel	0.6mm
Operating Life	1,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

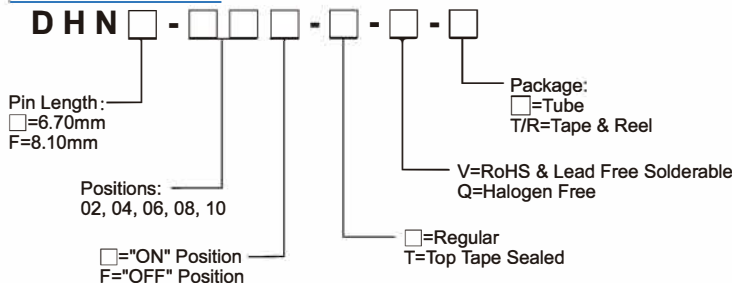
CIRCUIT



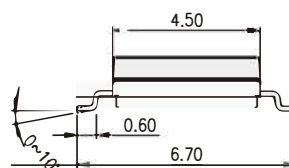
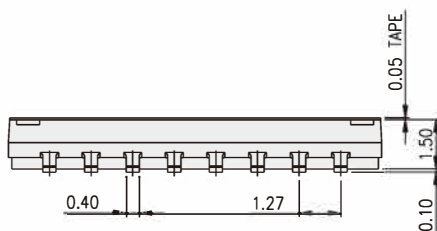
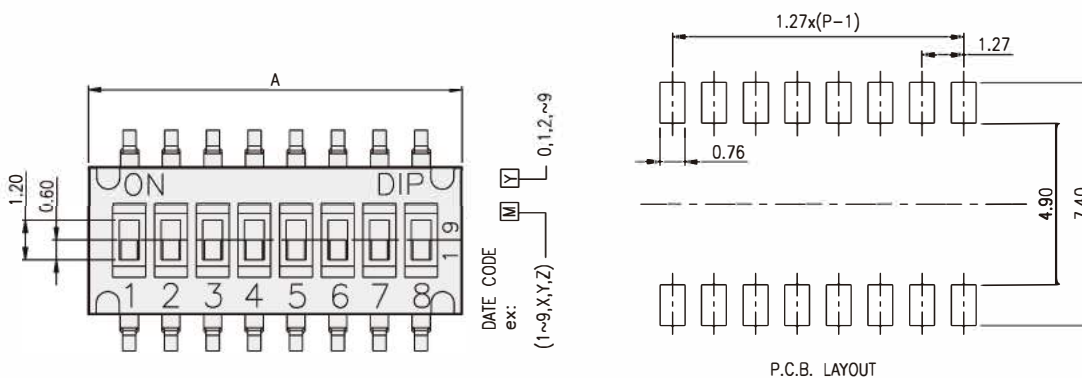
PACKAGE

- <Tube>**
DHN(F)-02: 125 pcs
DHN(F)-04: 75 pcs
DHN(F)-06: 54 pcs
DHN(F)-08: 40 pcs
DHN(F)-10: 33 pcs
- <Tape & Reel>**
DHN: 4000 pcs
DHNF: 2500 pcs

HOW TO ORDER



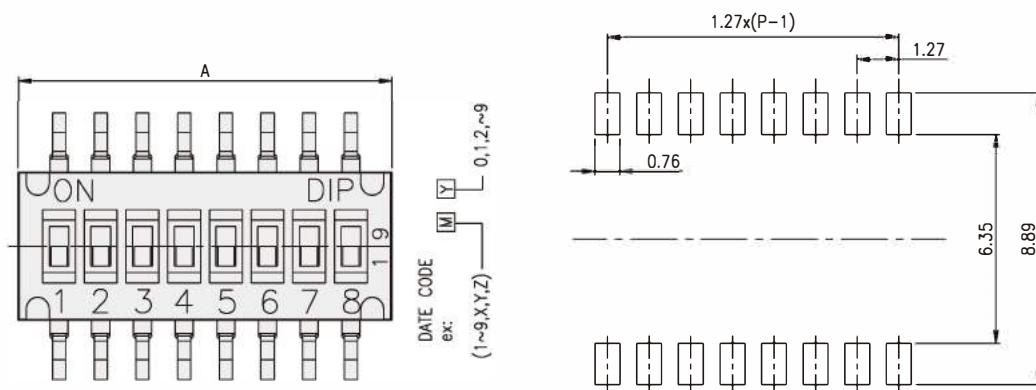
DHN



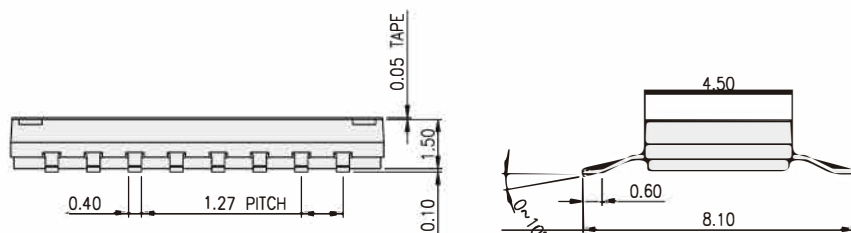
PART NO.	NO.OF POS	DIM A
DHN-02	2	3.77
DHN-04	4	6.31
DHN-06	6	8.85
DHN-08	8	11.39
DHN-10	10	13.93

DHNF

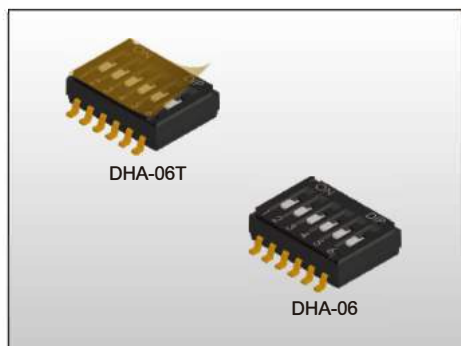
DIP SWITCH
R_R



P.C.B. LAYOUT



PART NO.	NO.OF POS	DIM A
DHNF-02	2	3.77
DHNF-04	4	6.31
DHNF-06	6	8.85
DHNF-08	8	11.39
DHNF-10	10	13.93



FEATURES

- ※Low profile 2.2mm height
- ※Gold contact for high reliability
- ※Top tape type for washing process

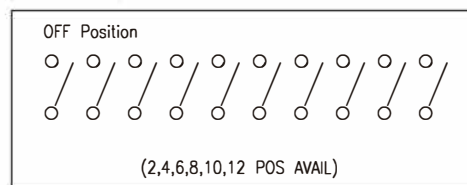
APPLICATION

- ※Industrial control
- ※Automatic machines control
- ※NB, electronic devices

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	300V AC/1 minute
Operating Force	500gf max.
Travel	0.8mm
Operating Life	1,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

<Tape & Reel>
1800 pcs

<Tube>
DHA-02: 125 pcs
DHA-04: 75 pcs
DHA-06: 54 pcs
DHA-08: 40 pcs
DHA-10: 33 pcs
DHA-12: 28 pcs

HOW TO ORDER

D H A - ☐ ☐ ☐ Q ☐

Positions: 02, 04, 06, 08, 10, 12

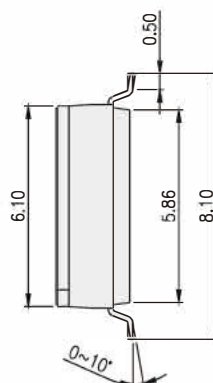
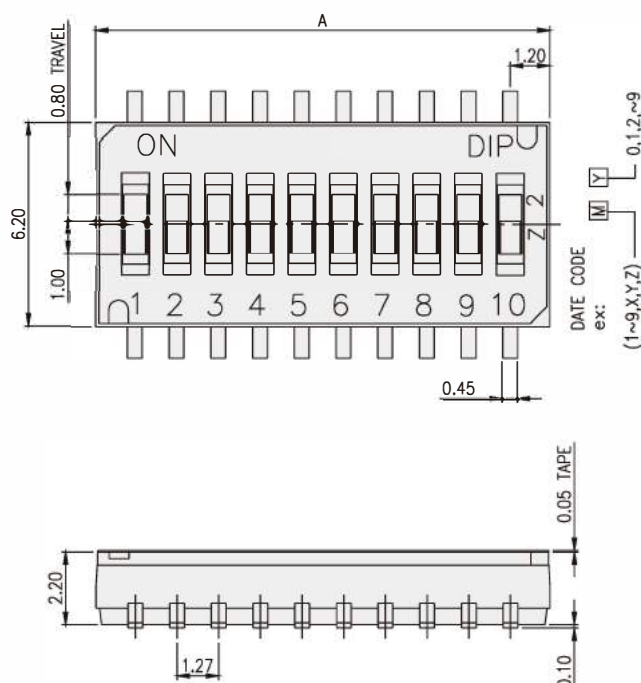
☐ = "OFF" Position
N = "ON" Position

Package:
R = Tape & Reel
☐ = Tube

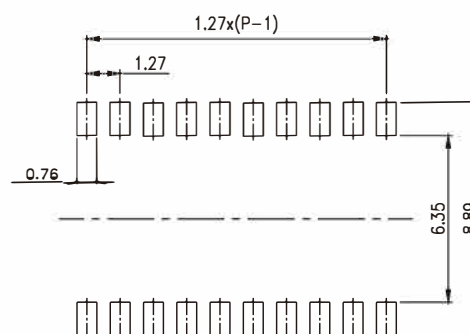
Halogen Free

☐ = Regular
T = Top Tape Sealed

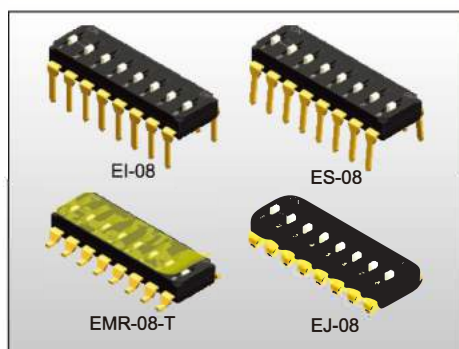
DHA



PART NO.	NO.OF POS	DIM A
DHA-02	2	3.67
DHA-04	4	6.21
DHA-06	6	8.75
DHA-08	8	11.29
DHA-10	10	13.83
DHA-12	12	16.37



P.C.B. LAYOUT



FEATURES

- ※End stackable
- ※Through hole or SMT
- ※Gold contact for high reliability

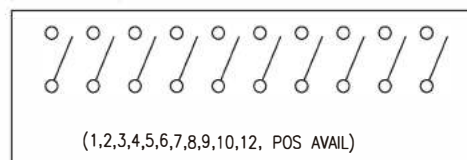
APPLICATION

- ※Industrial control
- ※Automatic machines control
- ※Telecommunication

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	1,000gf max.
Travel	1mm
Operating Life	2,000 cycles
Operating Temp.	-20°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

<Tube>

EM(R)/EI(R)/ES(R)-01: 194 pcs

E□(R)-02: 95 pcs

E□(R)-03: 63 pcs

E□(R)-04: 47 pcs

E□(R)-05: 38 pcs

E□(R)-06: 31 pcs

E□(R)-07: 27 pcs

E□(R)-08: 23 pcs

E□(R)-09: 21 pcs

E□(R)-10: 19 pcs

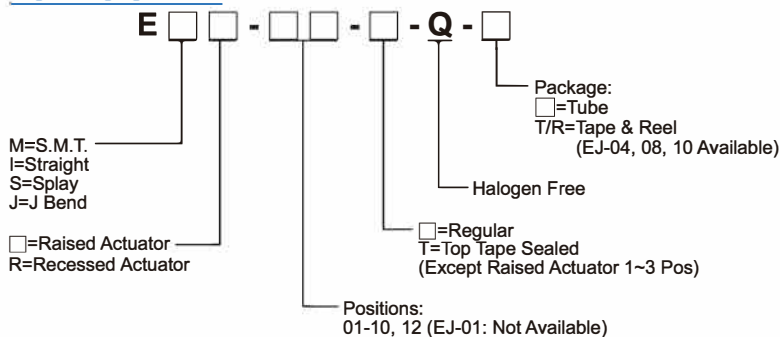
E□(R)-12: 15 pcs

<Tape & Reel>

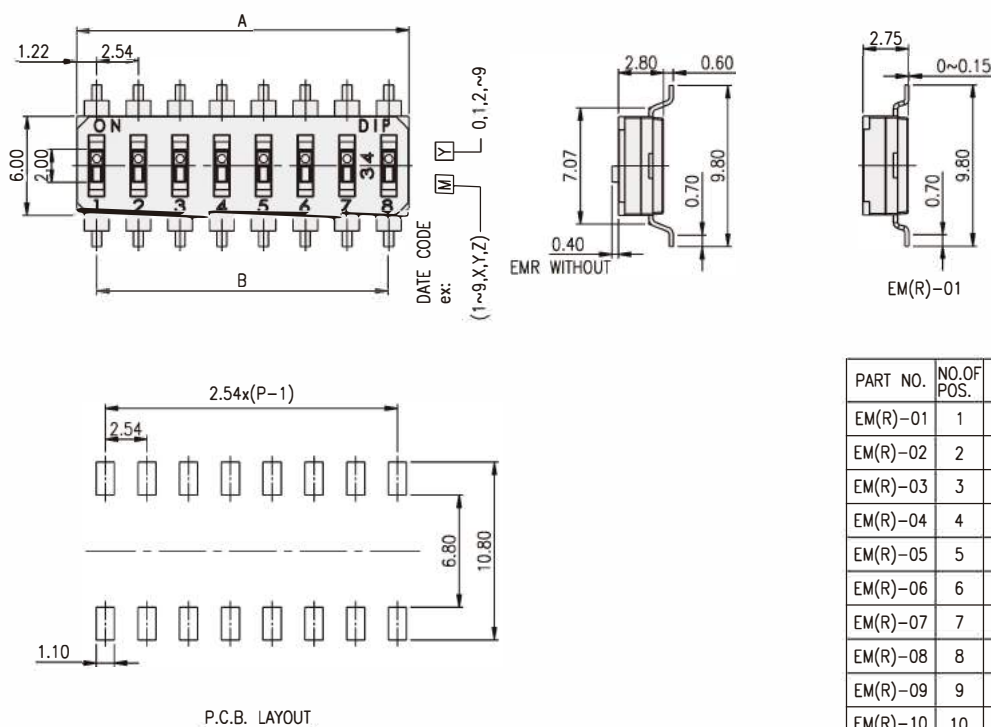
EM(R)-01~10, 12: 900 pcs

EJ(R)-04, 08, 10: 900 pcs

HOW TO ORDER

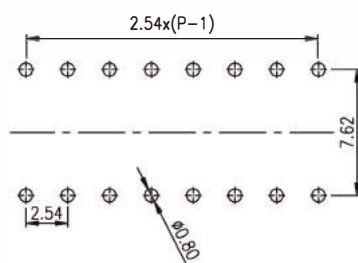
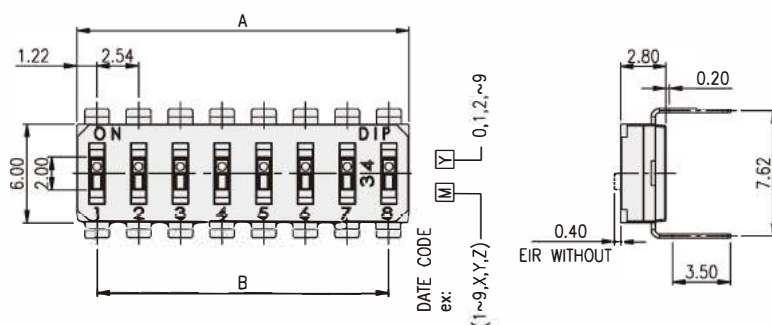


EM(R)



PART NO.	NO.OF POS.	DIM.A	DIM.B
EM(R)-01	1	2.44	
EM(R)-02	2	4.98	2.54
EM(R)-03	3	7.52	5.08
EM(R)-04	4	10.06	7.62
EM(R)-05	5	12.60	10.16
EM(R)-06	6	15.14	12.70
EM(R)-07	7	17.68	15.24
EM(R)-08	8	20.22	17.78
EM(R)-09	9	22.76	20.32
EM(R)-10	10	25.30	22.86
EM(R)-12	12	30.38	27.94

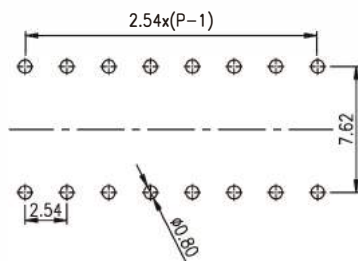
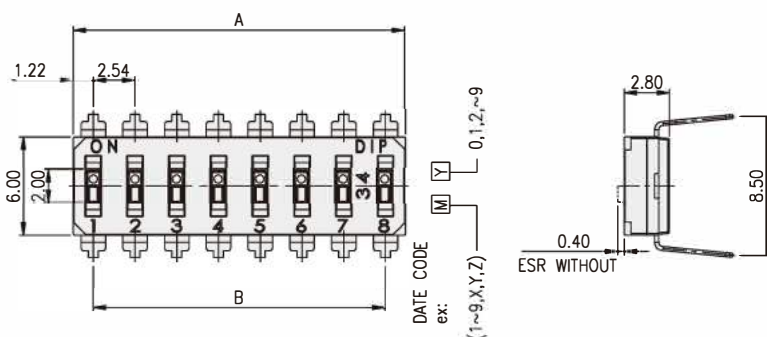
EI(R)



P.C.B. LAYOUT

PART NO.	NO.OF POS.	DIM.A	DIM.B
Ei(R)-01	1	2.44	
Ei(R)-02	2	4.98	2.54
Ei(R)-03	3	7.52	5.08
Ei(R)-04	4	10.06	7.62
Ei(R)-05	5	12.60	10.16
Ei(R)-06	6	15.14	12.70
Ei(R)-07	7	17.68	15.24
Ei(R)-08	8	20.22	17.78
Ei(R)-09	9	22.76	20.32
Ei(R)-10	10	25.30	22.86
Ei(R)-12	12	30.38	27.94

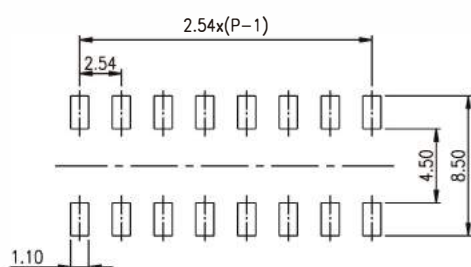
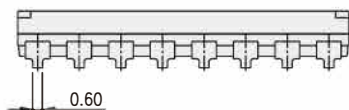
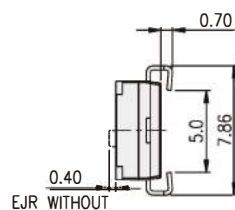
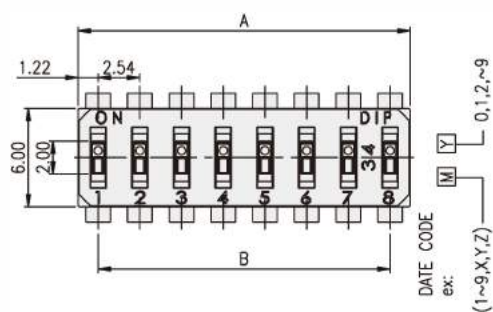
ES(R)



P.C.B. LAYOUT

PART NO.	NO.OF POS.	DIM.A	DIM.B
ES(R)-01	1	2.44	
ES(R)-02	2	4.98	2.54
ES(R)-03	3	7.52	5.08
ES(R)-04	4	10.06	7.62
ES(R)-05	5	12.60	10.16
ES(R)-06	6	15.14	12.70
ES(R)-07	7	17.68	15.24
ES(R)-08	8	20.22	17.78
ES(R)-09	9	22.76	20.32
ES(R)-10	10	25.30	22.86
ES(R)-12	12	30.38	27.94

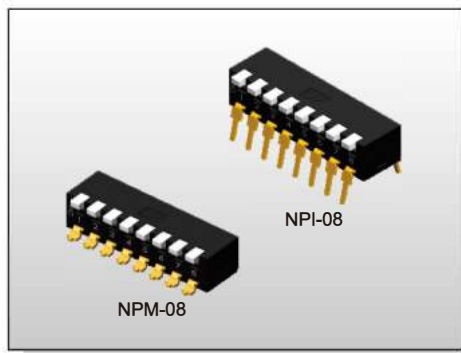
EJ(R)



P.C.B. LAYOUT

PART NO.	NO.OF POS.	DIM.A	DIM.B
* EJ(R)-02	2	4.98	2.54
EJ(R)-03	3	7.52	5.08
EJ(R)-04	4	10.06	7.62
* EJ(R)-05	5	12.60	10.16
EJ(R)-06	6	15.14	12.70
* EJ(R)-07	7	17.68	15.24
EJ(R)-08	8	20.22	17.78
EJ(R)-09	9	22.76	20.32
* EJ(R)-10	10	25.30	22.86
* EJ(R)-12	12	30.38	27.94

* Please consult DIPTRONICS



FEATURES

- ※Side actuation
- ※Wide stem for easy operating
- ※Gold contact for high reliability

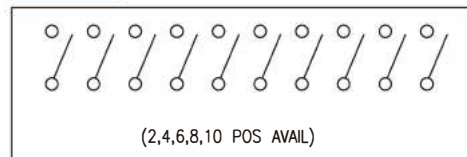
APPLICATION

- ※Industrial control
- ※Automatic machines control
- ※Telecommunication

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	800gf max.
Travel	20°
Operating Life	2,000 cycles
Operating Temp.	-20°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

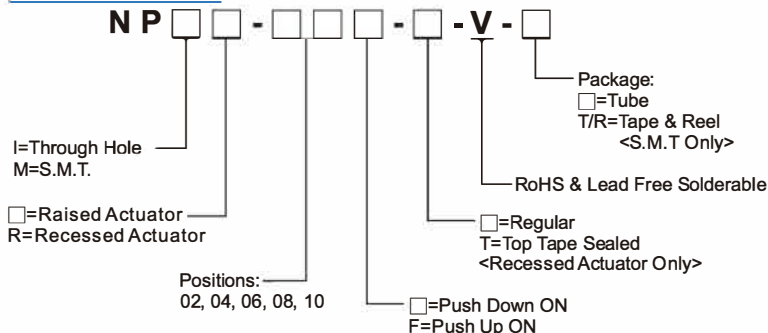
<Tube>

NPI(R)/NPM(R)-02: 70 pcs
NPI(R)/NPM(R)-04: 40 pcs
NPI(R)/NPM(R)-06: 28 pcs
NPI(R)/NPM(R)-08: 20 pcs
NPI(R)/NPM(R)-10: 16 pcs

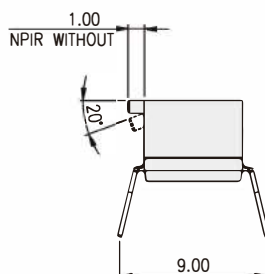
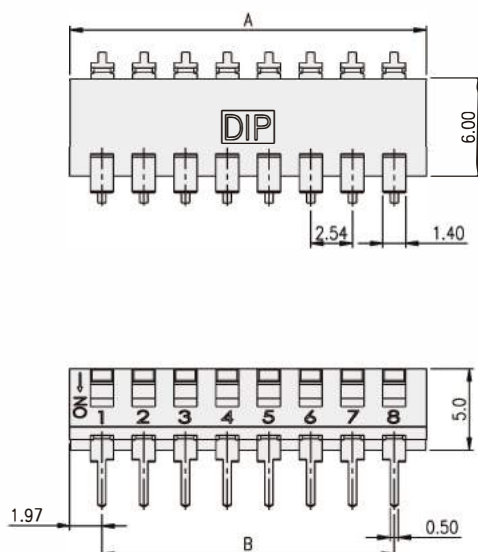
<Tape & Reel>

NPM(R)-02, 04, 06, 08, 10: 700 pcs

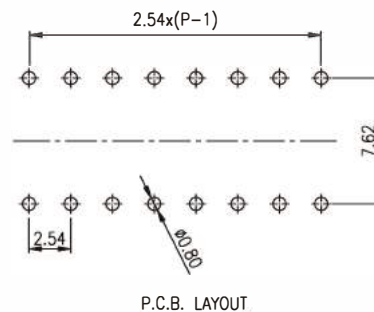
HOW TO ORDER



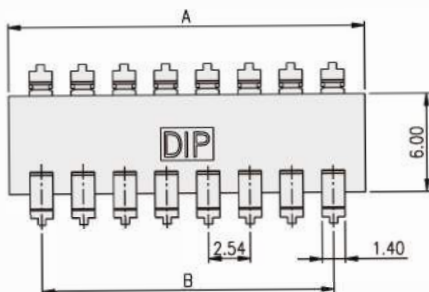
NPI



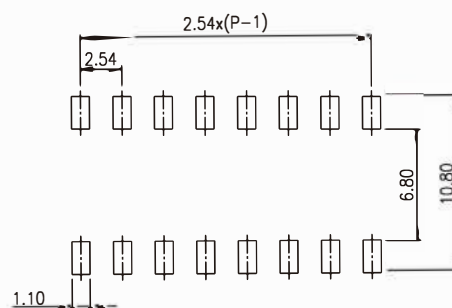
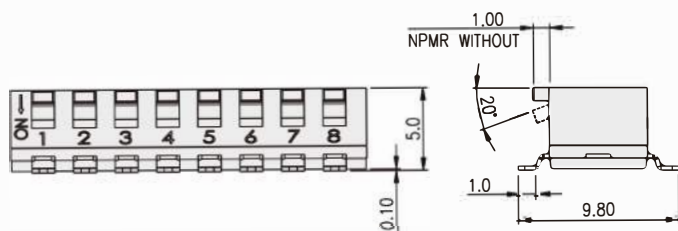
PART NO.	NO.OF POS.	DIM.A	DIM.B
NPI(R)-02	2	6.48	2.54
NPI(R)-04	4	11.56	7.62
NPI(R)-06	6	16.64	12.70
NPI(R)-08	8	21.72	17.78
NPI(R)-10	10	26.80	22.86



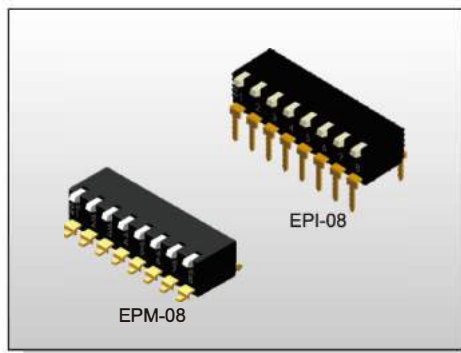
NPM



PART NO.	NO.OF POS.	DIM.A	DIM.B
NPM(R)-02	2	6.48	2.54
NPM(R)-04	4	11.56	7.62
NPM(R)-06	6	16.64	12.70
NPM(R)-08	8	21.72	17.78
NPM(R)-10	10	26.80	22.86



P.C.B. LAYOUT



FEATURES

- ※Side actuation
- ※End stackable
- ※Through hole or SMT

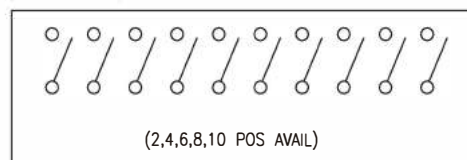
APPLICATION

- ※Industrial control
- ※Automatic machines control
- ※Telecommunication

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	800gf max.
Travel	20°
Operating Life	2,000 cycles
Operating Temp.	-20°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

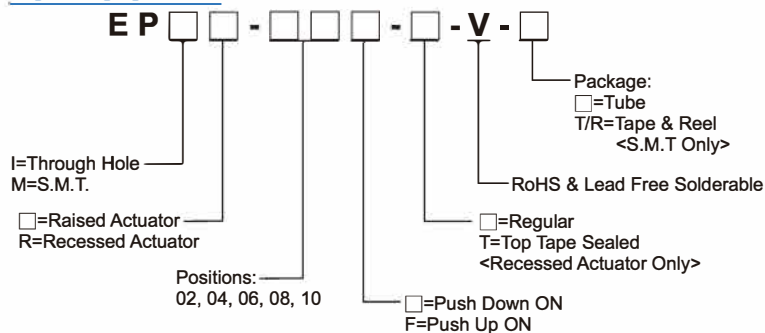
<Tube>

EP□(R)-02: 95 pcs
EP□(R)-04: 47 pcs
EP□(R)-06: 31 pcs
EP□(R)-08: 23 pcs
EP□(R)-10: 18 pcs

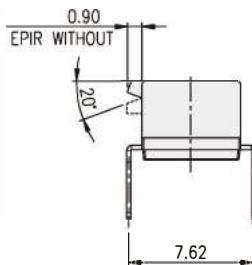
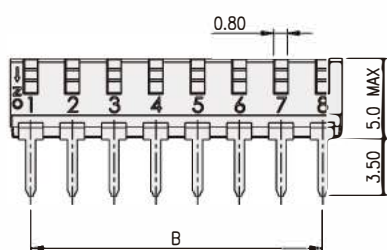
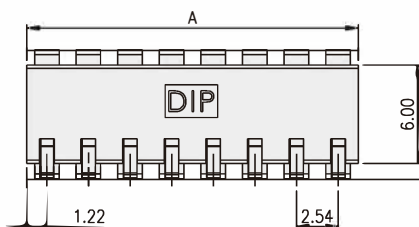
<Tape & Reel>

EPM(R): 700 pcs

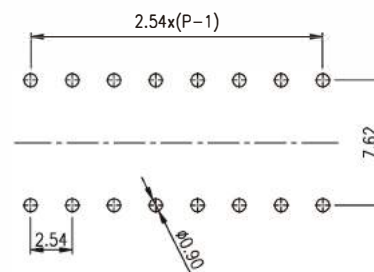
HOW TO ORDER



EPI(R)

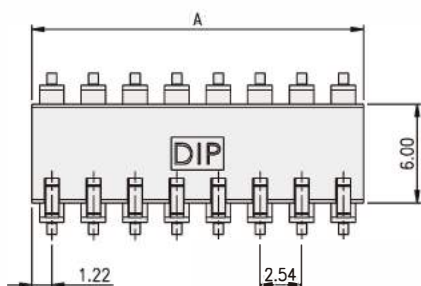


PART NO.	NO.OF POS.	DIM.A	DIM.B
EPI(R)-02	2	4.89	2.54
EPI(R)-04	4	10.06	7.62
EPI(R)-06	6	15.14	12.70
EPI(R)-08	8	20.22	17.78
EPI(R)-10	10	25.30	22.86

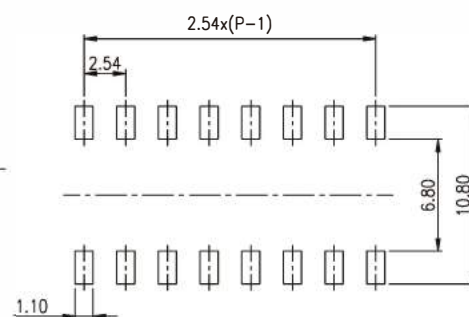
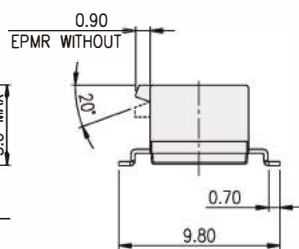
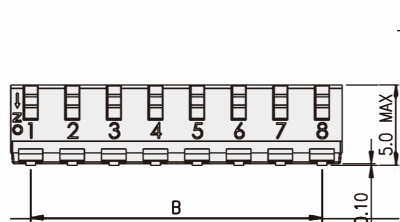


P.C.B. LAYOUT

EPM(R)

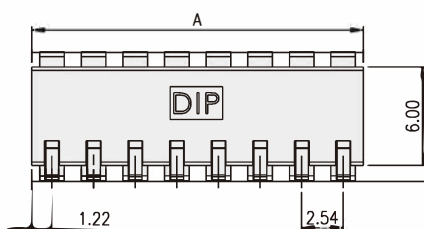


PART NO.	NO.OF POS.	DIM.A	DIM.B
EPM(R)-02	2	4.89	2.54
EPM(R)-04	4	10.06	7.62
EPM(R)-06	6	15.14	12.70
EPM(R)-08	8	20.22	17.78
EPM(R)-10	10	25.30	22.86

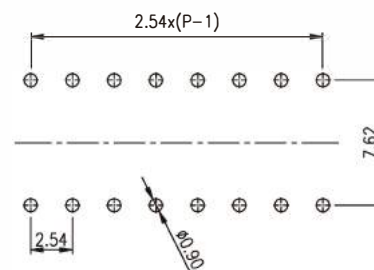
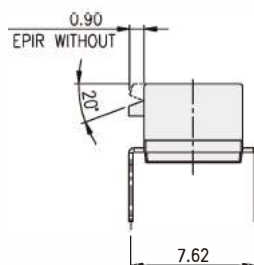
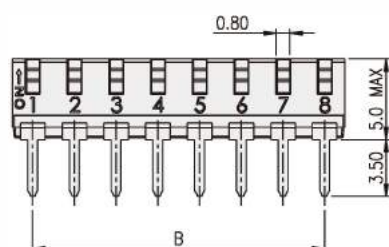


P.C.B. LAYOUT

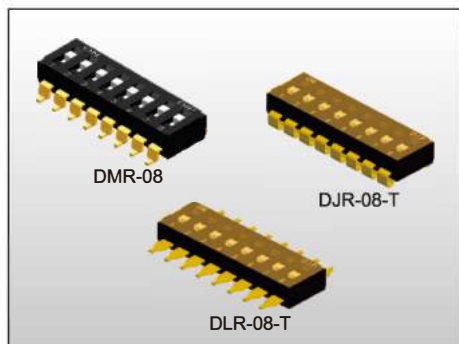
EPI(R)-F



PART NO.	NO.OF POS.	DIM.A	DIM.B
EPI(R)-02F	2	4.89	2.54
EPI(R)-04F	4	10.06	7.62
EPI(R)-06F	6	15.14	12.70
EPI(R)-08F	8	20.22	17.78
EPI(R)-10F	10	25.30	22.86



P.C.B. LAYOUT

**FEATURES**

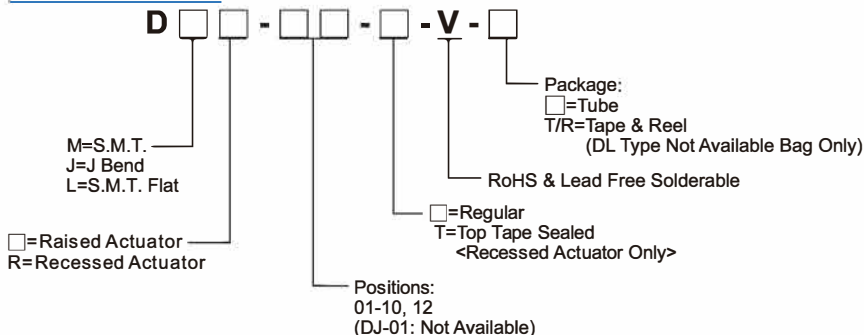
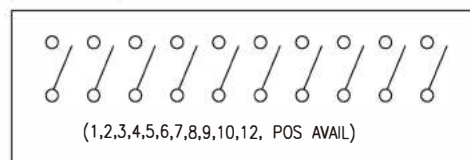
- ※Low profile for space saving
- ※Gold contact for high reliability
- ※Top tape type for washing process

APPLICATION

- ※Industrial control
- ※Automatic machines control
- ※Telecommunication

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	50mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	1,000gf max.
Travel	1mm
Operating Life	2,000 cycles
Operating Temp.	-20°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER**CIRCUIT****PACKAGE****<Tube>**

DM(R), DJ(R):

01: 130 pcs 02: 76 pcs 03: 55 pcs 04: 42 pcs
05: 35 pcs 06: 28 pcs 07: 25 pcs 08: 22 pcs
09: 20 pcs 10: 18 pcs 12: 15 pcs

<Tape & Reel>

DM(R)-01: 800 pcs

DMR-02~DMR-12: 900 pcs

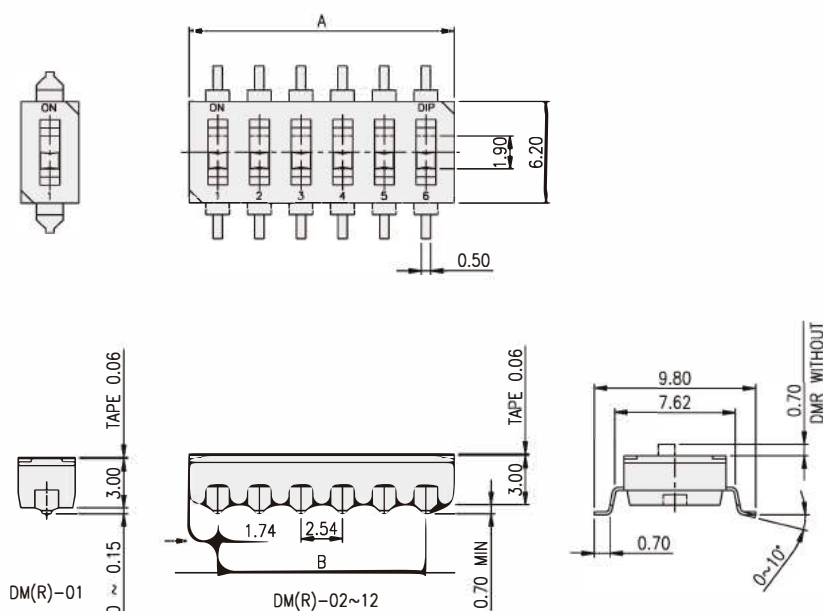
DM-(01)(05)(07): 800 pcs

DM-(02)(03)(04)(06)(08)(09)(10)(12): 700 pcs

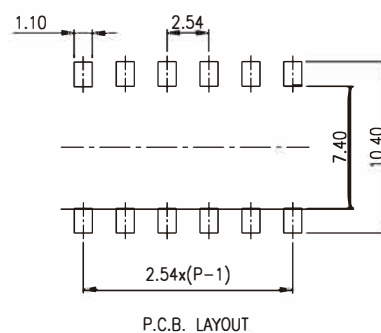
DJR-(02)(03)(04)(08)(09)(10): 1000 pcs

<Bag>

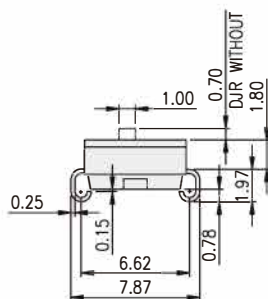
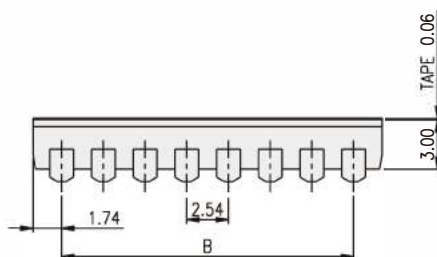
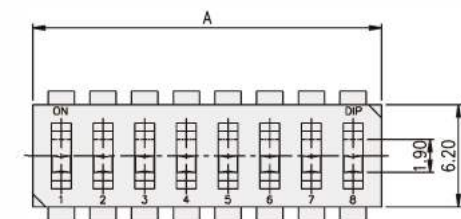
DL(R): 1000 pcs

DM(R)

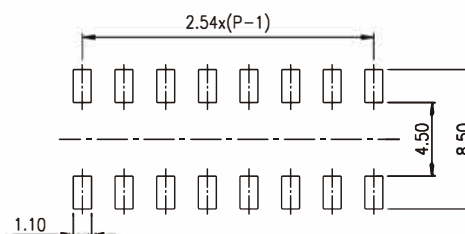
PART NO.	NO.OF POS.	DIM.A	DIM.B
DM(R)-01	1	3.48	
DM(R)-02	2	6.02	2.54
DM(R)-03	3	8.56	5.08
DM(R)-04	4	11.10	7.62
DM(R)-05	5	13.64	10.16
DM(R)-06	6	16.18	12.70
DM(R)-07	7	18.72	15.24
DM(R)-08	8	21.26	17.78
DM(R)-09	9	23.80	20.32
DM(R)-10	10	26.34	22.86
DM(R)-12	12	31.42	27.94



DJ(R)

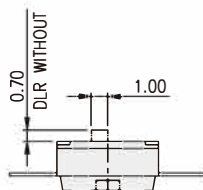
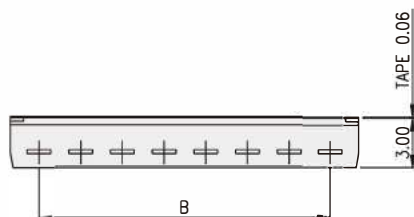
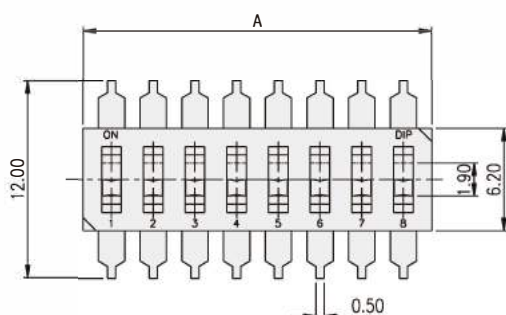


PART NO.	NO.OF POS.	DIM.A	DIM.B
DJ(R)-02	2	6.02	2.54
DJ(R)-03	3	8.56	5.08
DJ(R)-04	4	11.10	7.62
DJ(R)-05	5	13.64	10.16
DJ(R)-06	6	16.18	12.70
DJ(R)-07	7	18.72	15.24
DJ(R)-08	8	21.26	17.78
DJ(R)-09	9	23.80	20.32
DJ(R)-10	10	26.34	22.86
DJ(R)-12	12	31.42	27.94

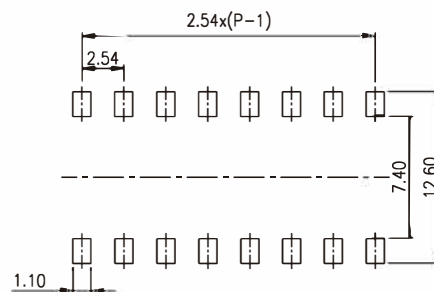


P.C.B. LAYOUT

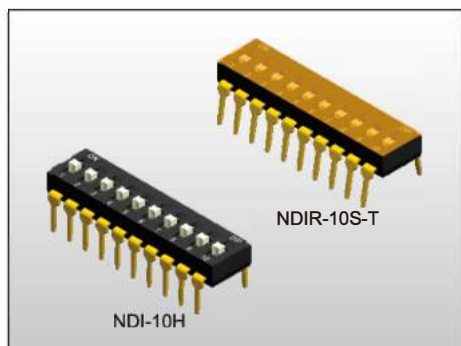
DL(R)



PART NO.	NO.OF POS.	DIM.A	DIM.B
DL(R)-01	1	3.48	
DL(R)-02	2	6.02	2.54
DL(R)-03	3	8.56	5.08
DL(R)-04	4	11.10	7.62
DL(R)-05	5	13.64	10.16
DL(R)-06	6	16.18	12.70
DL(R)-07	7	18.72	15.24
DL(R)-08	8	21.26	17.78
DL(R)-09	9	23.80	20.32
DL(R)-10	10	26.34	22.86
DL(R)-12	12	31.42	27.94



P.C.B. LAYOUT



FEATURES

- ※Low profile for space saving
- ※Gold contact for high reliability
- ※Top tape type for washing process

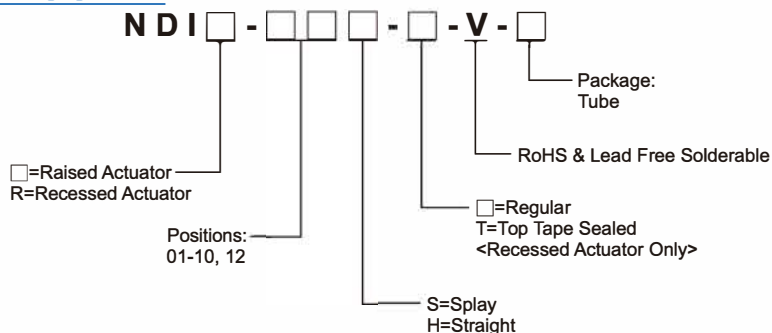
APPLICATION

- ※Industrial control
- ※Automatic machines control
- ※Telecommunication

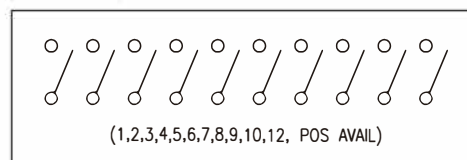
SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	50mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	1,000gf max.
Travel	1mm
Operating Life	2,000 cycles
Operating Temp.	-20°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER



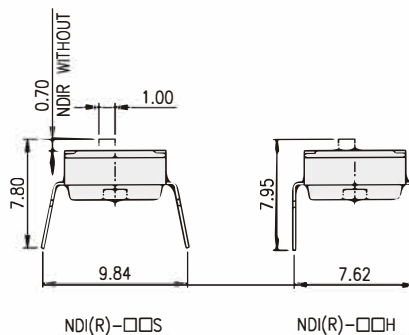
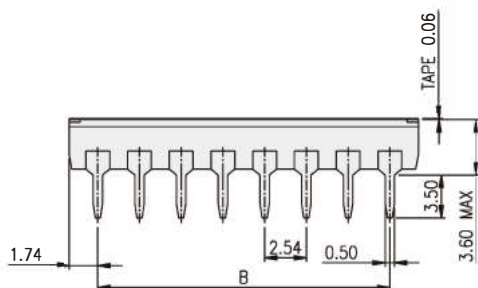
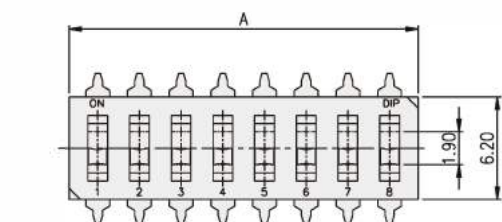
CIRCUIT



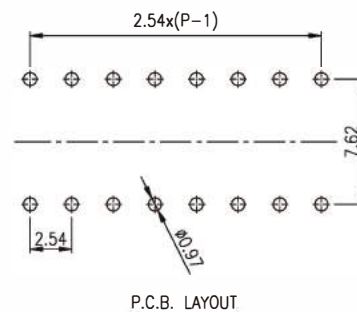
PACKAGE

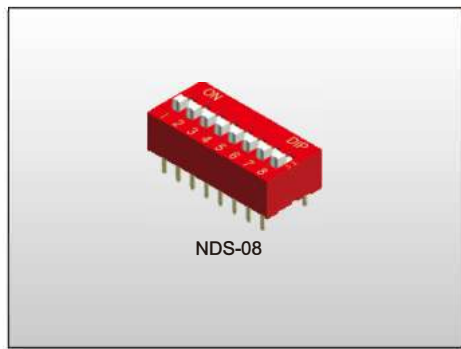
- <Tube>
- NDI(R)-01: 130 pcs
 - NDI(R)-02: 76 pcs
 - NDI(R)-03: 55 pcs
 - NDI(R)-04: 42 pcs
 - NDI(R)-05: 35 pcs
 - NDI(R)-06: 28 pcs
 - NDI(R)-07: 25 pcs
 - NDI(R)-08: 22 pcs
 - NDI(R)-09: 20 pcs
 - NDI(R)-10: 18 pcs
 - NDI(R)-12: 15 pcs

NDI(R)



PART NO.	NO.OF POS.	DIM.A	DIM.B
NDI(R)-01	1	3.48	
NDI(R)-02	2	6.02	2.54
NDI(R)-03	3	8.56	5.08
NDI(R)-04	4	11.10	7.62
NDI(R)-05	5	13.64	10.16
NDI(R)-06	6	16.18	12.70
NDI(R)-07	7	18.72	15.24
NDI(R)-08	8	21.26	17.78
NDI(R)-09	9	23.80	20.32
NDI(R)-10	10	26.34	22.86
NDI(R)-12	12	31.42	27.94





FEATURES

- ※Both ON/OFF position applicable for soldering process.
- ※Gold contact for high reliability
- ※Red, blue, and black color options.

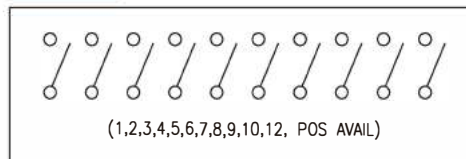
APPLICATION

- ※Industrial control
- ※Computers and peripherals
- ※Variety of function controls

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	50mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	1,000gf max.
Travel	2mm
Operating Life	2,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT

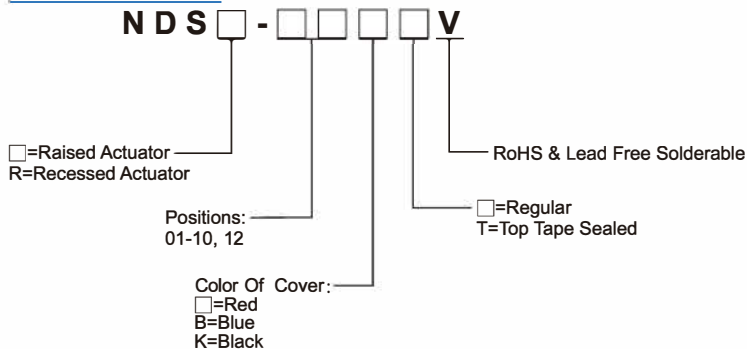


PACKAGE

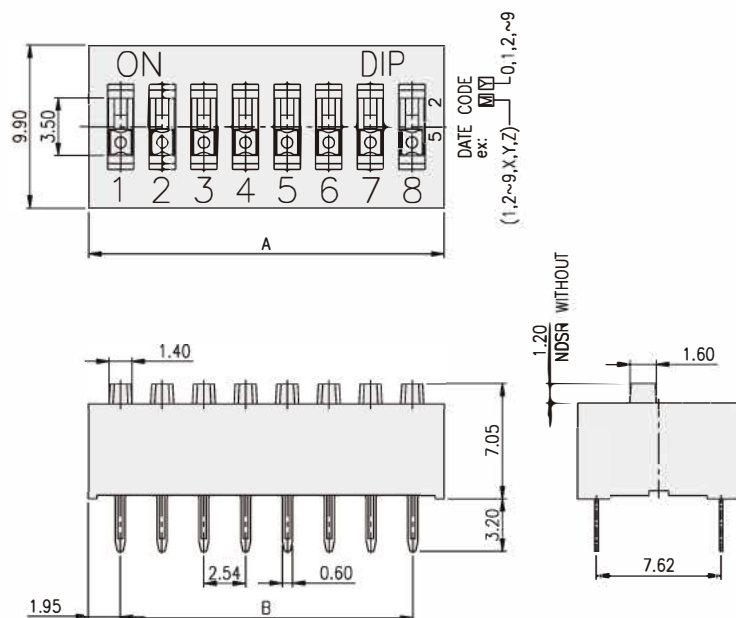
<Tube>

NDS(R)-01: 120 pcs	NDS(R)-01T: 110 pcs
NDS(R)-02: 72 pcs	NDS(R)-02T: 70 pcs
NDS(R)-03: 51 pcs	NDS(R)-03T: 50 pcs
NDS(R)-04: 40 pcs	NDS(R)-04T: 39 pcs
NDS(R)-05: 32 pcs	NDS(R)-05T: 32 pcs
NDS(R)-06: 27 pcs	NDS(R)-06T: 27 pcs
NDS(R)-07: 24 pcs	NDS(R)-07T: 24 pcs
NDS(R)-08: 21 pcs	NDS(R)-08T: 21 pcs
NDS(R)-09: 19 pcs	NDS(R)-09T: 19 pcs
NDS(R)-10: 17 pcs	NDS(R)-10T: 17 pcs
NDS(R)-12: 14 pcs	NDS(R)-12T: 14 pcs

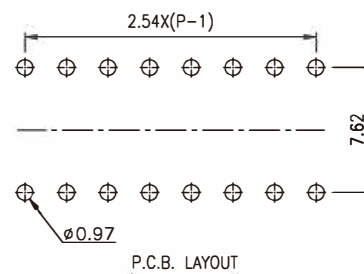
HOW TO ORDER

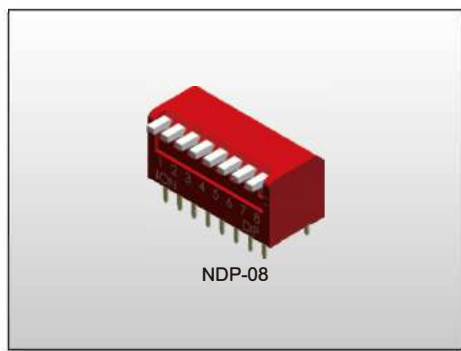


NDS(R)



PART NO.	NO.OF POS.	DIM.A	DIM.B
NDS(R)-01	1	3.90	
NDS(R)-02	2	6.44	2.54
NDS(R)-03	3	8.98	5.08
NDS(R)-04	4	11.52	7.62
NDS(R)-05	5	14.06	10.16
NDS(R)-06	6	16.60	12.70
NDS(R)-07	7	19.14	15.24
NDS(R)-08	8	21.68	17.78
NDS(R)-09	9	24.22	20.32
NDS(R)-10	10	26.76	22.86
NDS(R)-12	12	31.84	27.94





FEATURES

- ※Side actuation
- ※Gold contact for high reliability
- ※Red, blue, and black color options.

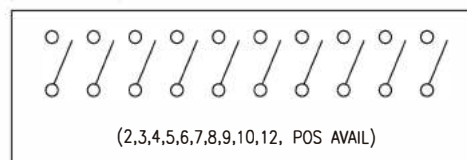
APPLICATION

- ※Industrial control
- ※Computers and peripherals
- ※Variety of function controls

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	50mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	400gf max.
Travel	25°
Operating Life	2,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT

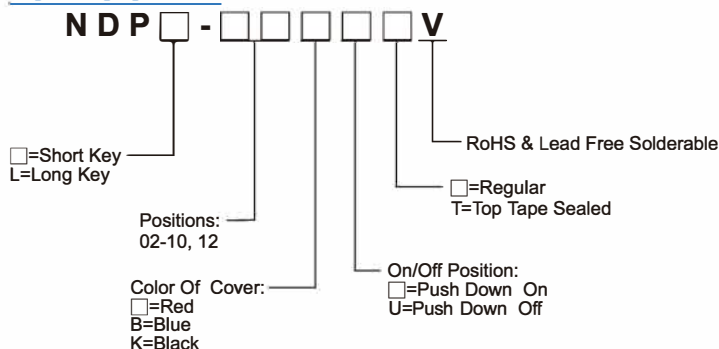


PACKAGE

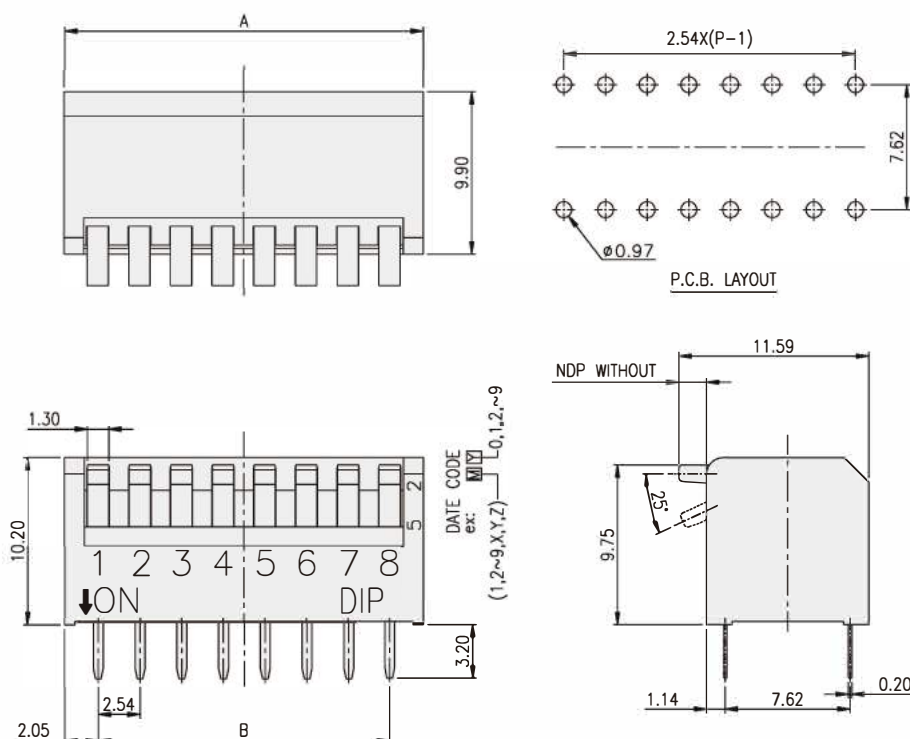
<Tube>

NDP(L)-02: 70 pcs	NDP(L)-02T: 65 pcs
NDP(L)-03: 50 pcs	NDP(L)-03T: 49 pcs
NDP(L)-04: 39 pcs	NDP(L)-04T: 39 pcs
NDP(L)-05: 32 pcs	NDP(L)-05T: 32 pcs
NDP(L)-06: 27 pcs	NDP(L)-06T: 27 pcs
NDP(L)-07: 24 pcs	NDP(L)-07T: 24 pcs
NDP(L)-08: 21 pcs	NDP(L)-08T: 21 pcs
NDP(L)-09: 19 pcs	NDP(L)-09T: 19 pcs
NDP(L)-10: 17 pcs	NDP(L)-10T: 17 pcs
NDP(L)-12: 14 pcs	NDP(L)-12T: 14 pcs

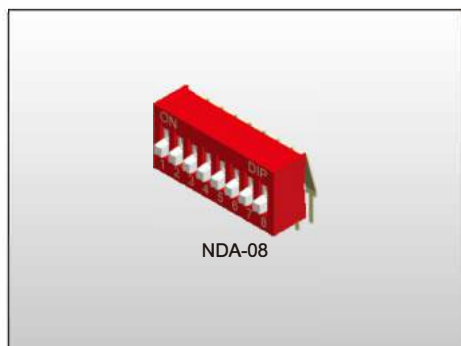
HOW TO ORDER



NDP(L)



PART NO.	NO.OF POS.	DIM.A	DIM.B
NDP(L)-02	2	6.64	2.54
NDP(L)-03	3	9.18	5.08
NDP(L)-04	4	11.72	7.62
NDP(L)-05	5	14.26	10.16
NDP(L)-06	6	16.80	12.70
NDP(L)-07	7	19.34	15.24
NDP(L)-08	8	21.88	17.78
NDP(L)-09	9	24.42	20.32
NDP(L)-10	10	26.96	22.86
NDP(L)-12	12	32.04	27.94



FEATURES

- ※ Side actuation
- ※ Gold contact for high reliability
- ※ Red, blue, and black color options.

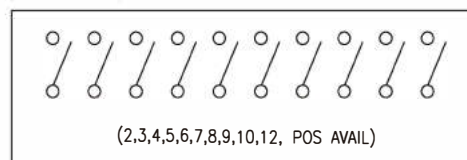
APPLICATION

- ※ Industrial control
- ※ Computers and peripherals
- ※ Variety of function controls

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	50mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	1,000gf max.
Travel	2mm
Operating Life	2,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT

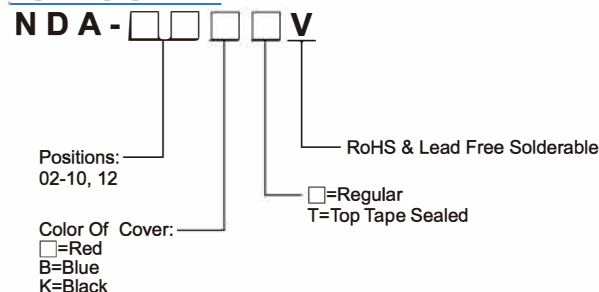


PACKAGE

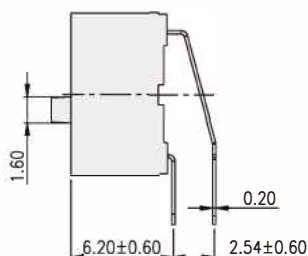
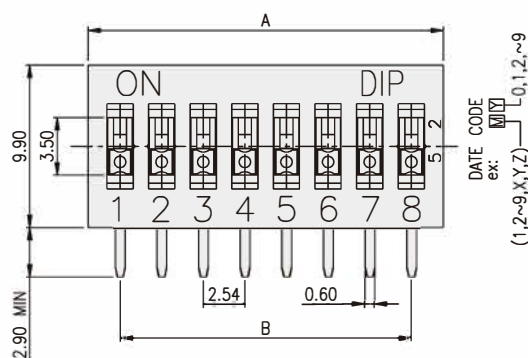
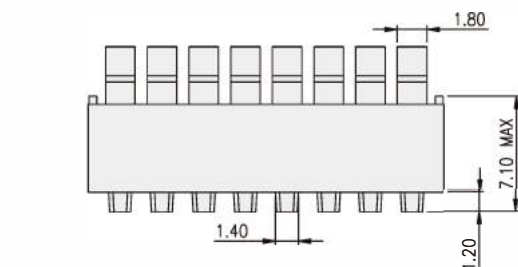
<Tube>

NDA-02: 73pcs	NDA-02T: 70 pcs
NDA-03: 52pcs	NDA-03T: 50 pcs
NDA-04: 40pcs	NDA-04T: 39 pcs
NDA-05: 33pcs	NDA-05T: 32 pcs
NDA-06: 28pcs	NDA-06T: 28 pcs
NDA-07: 24pcs	NDA-07T: 24 pcs
NDA-08: 21pcs	NDA-08T: 21 pcs
NDA-09: 19pcs	NDA-09T: 19 pcs
NDA-10: 17pcs	NDA-10T: 17 pcs
NDA-12: 14pcs	NDA-12T: 14 pcs

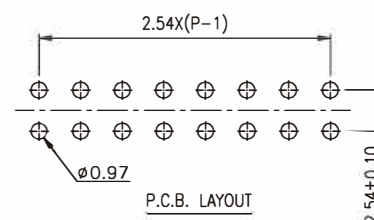
HOW TO ORDER

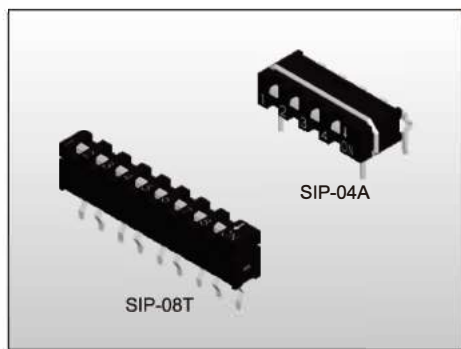


NDA



PART NO.	NO. OF POS.	DIM. A	DIM. B
NDA-02	2	6.44	2.54
NDA-03	3	8.98	5.08
NDA-04	4	11.52	7.62
NDA-05	5	14.06	10.16
NDA-06	6	16.60	12.70
NDA-07	7	19.14	15.24
NDA-08	8	21.68	17.78
NDA-09	9	24.22	20.32
NDA-10	10	26.76	22.86
NDA-12	12	31.84	27.94





FEATURES

- ※Single In-line Packaging saves PCB space
- ※Available in vertical or right angle models

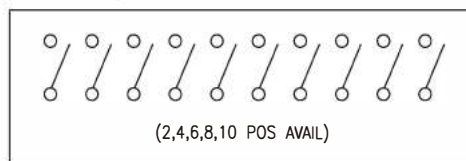
APPLICATION

- ※Industrial control
- ※Computers and peripherals
- ※Variety of function controls

SPECIFICATION

Contact Rating	10mA, 5V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	300V AC/1 minute
Operating Force	800gf max.
Operating Life	500 cycles
Operating Temp.	-30°C ~ +80°C
Storage Temp.	-30°C ~ +80°C

CIRCUIT

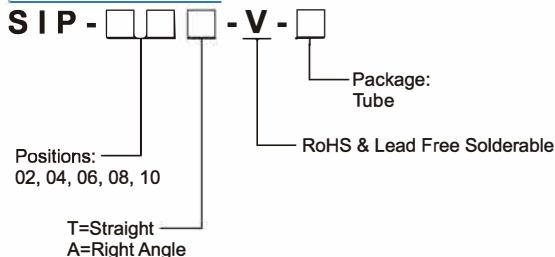


PACKAGE

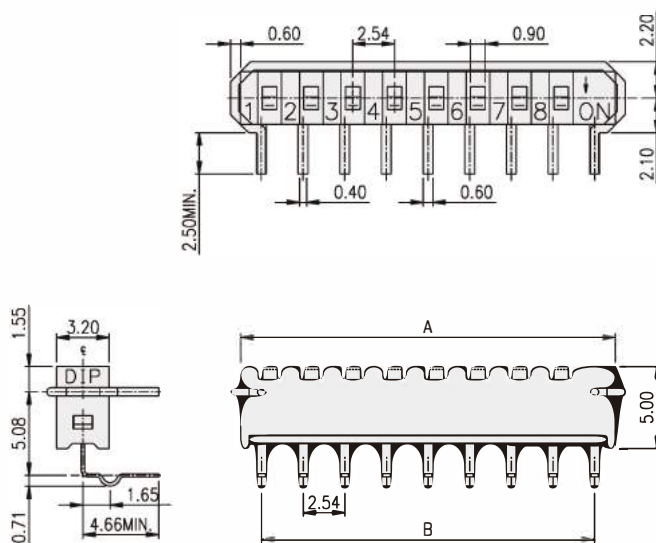
<Tube>

SIP-02A: 56 pcs	SIP-02T: 61 pcs
SIP-04A: 35 pcs	SIP-04T: 37 pcs
SIP-06A: 25 pcs	SIP-06T: 26 pcs
SIP-08A: 20 pcs	SIP-08T: 20 pcs
SIP-10A: 16 pcs	SIP-10T: 17 pcs

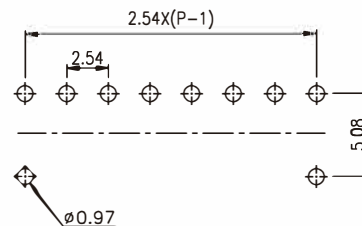
HOW TO ORDER



SIP-A

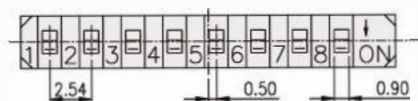


PART NO.	NO.OF POS.	DIM.A	DIM.B
SIP-02	2	7.62	5.08
SIP-04	4	12.70	10.16
SIP-06	6	17.78	15.24
SIP-08	8	22.86	20.32
SIP-10	10	27.94	25.40

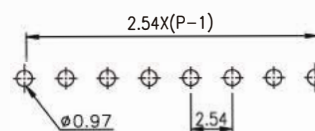
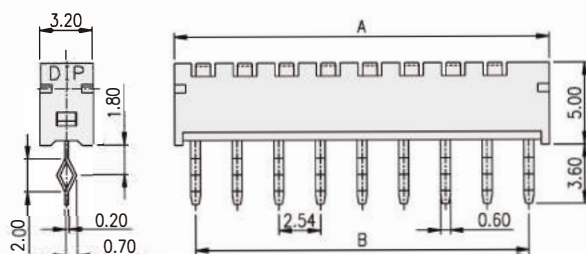


P.C.B. LAYOUT

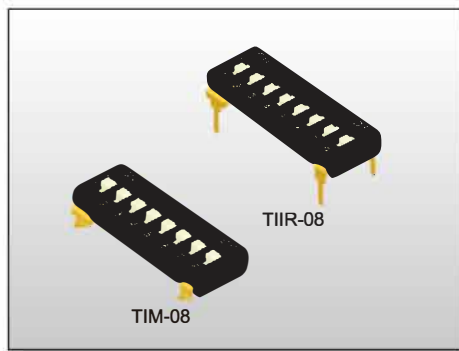
SIP-T



PART NO.	NO. OF POS.	DIM. A	DIM. B
SIP-02	2	7.62	5.08
SIP-04	4	12.70	10.16
SIP-06	6	17.78	15.24
SIP-08	8	22.86	20.32
SIP-10	10	27.94	25.40



P.C.B. LAYOUT



FEATURES

- ※3-state setting
- ※Low profile for space saving

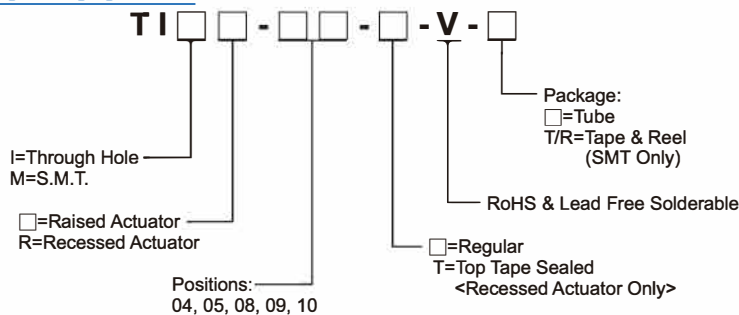
APPLICATION

- ※Remote control
- ※Home automation
- ※Telecommunication

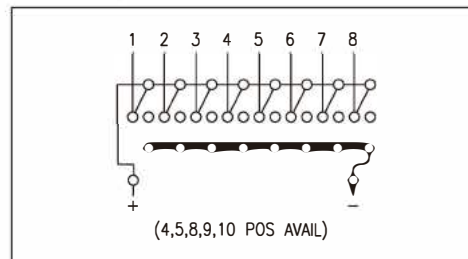
SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	1,000gf max.
Travel	0.8mm
Operating Life	2,000 cycles
Operating Temp.	-20°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER



CIRCUIT



PACKAGE

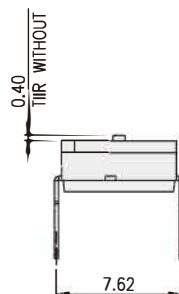
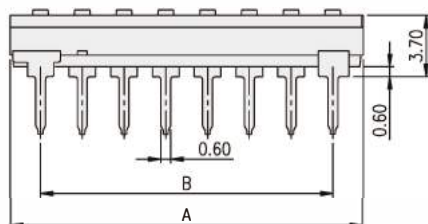
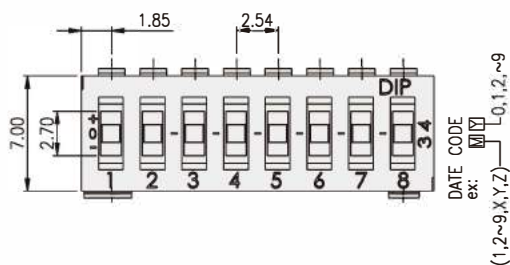
<Tube>

TII(R)/TIM(R)-04: 41 pcs
 TII(R)/TIM(R)-05: 34 pcs
 TII(R)/TIM(R)-08: 22 pcs
 TII(R)/TIM(R)-09: 20 pcs
 TII(R)/TIM(R)-10: 18 pcs

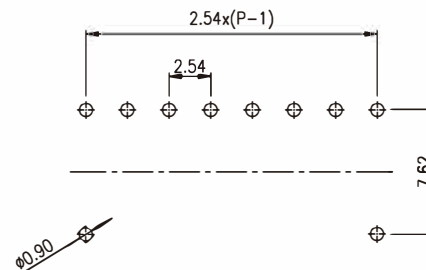
<Tape & Reel>

TIM(R): 900 pcs

TII(R)

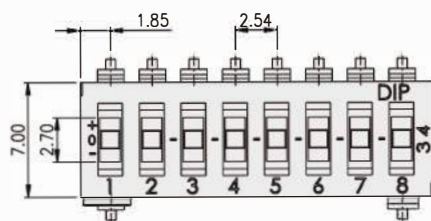


PART NO.	NO. OF POS.	DIM.A	DIM.B
TII(R)-04	4	11.32	7.62
TII(R)-05	5	13.86	10.16
TII(R)-08	8	21.48	17.78
TII(R)-09	9	24.02	20.32
TII(R)-10	10	26.56	22.86

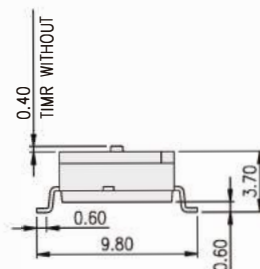
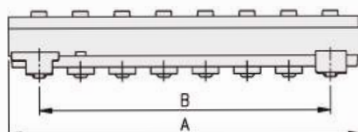


TIM(R)

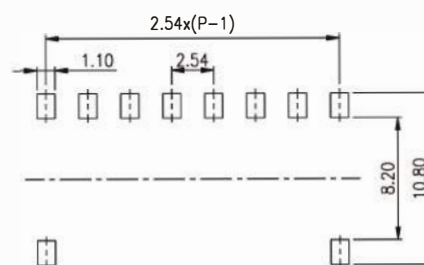
DIP SWITCH



DATE CODE
ex: **MMYY**
(1, 2~9, X, Y, Z) 0, 1, 2, ~9



PART NO.	NO. OF POS.	DIM. A	DIM. B
TIM(R)-04	4	11.32	7.62
TIM(R)-05	5	13.86	10.16
TIM(R)-08	8	21.48	17.78
TIM(R)-09	9	24.02	20.32
TIM(R)-10	10	26.56	22.86



P.C.B. LAYOUT



TDS-08

FEATURES

※3-state setting

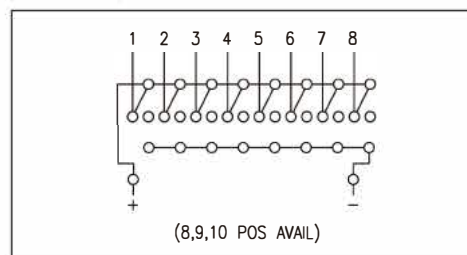
APPLICATION

- ※Remote control
- ※Home automation
- ※Telecommunication

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	1,000gf max.
Travel	1mm
Operating Life	2,000 cycles
Operating Temp.	-20°C ~ +70°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

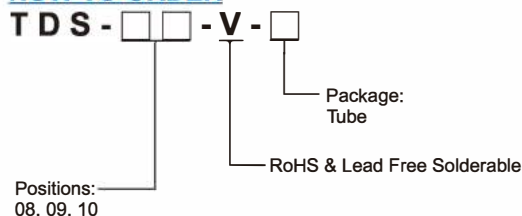
<Tube>

TDS-08: 19 pcs

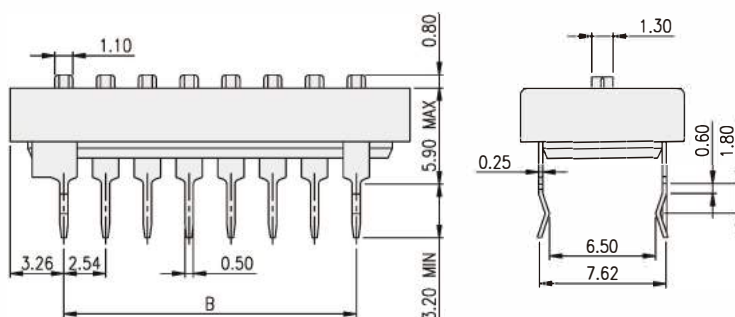
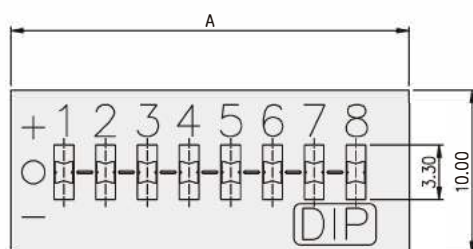
TDS-09: 17 pcs

TDS-10: 16 pcs

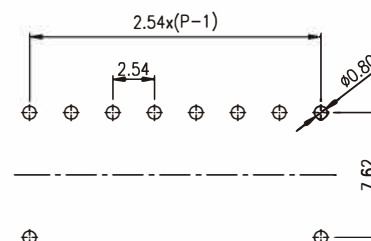
HOW TO ORDER



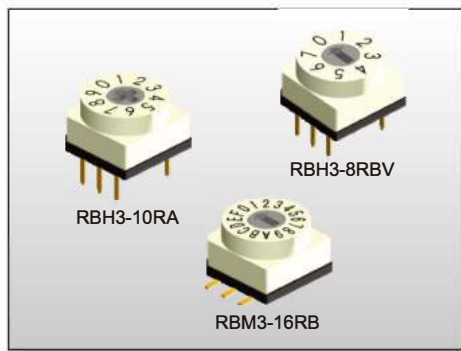
TDS



PART NO.	NO. OF POS.	DIM.A	DIM.B
TDS-08	8	24.30	17.78
TDS-09	9	26.84	20.32
TDS-10	10	29.38	22.86



P.C.B. LAYOUT



FEATURES

- ※BCD, Hexadecimal
- ※Cross-head & Flat-head Actuator
- ※Washable

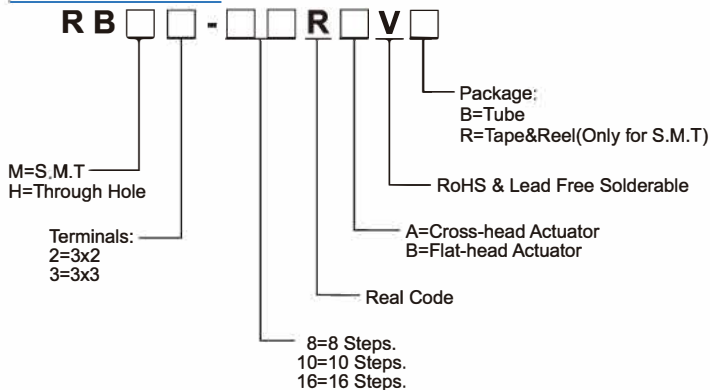
APPLICATION

- ※Security
- ※White goods
- ※Wireless microphone

SPECIFICATION

Contact Rating	150mA, 24V DC
Contact Resistance	80mΩ max.
Insulation Resistance	100MΩ min. 250V DC
Dielectric Strength	250V AC/1 minute
Operating Force	400gf-cm max.
Operating Life	10,000 steps
Operating Temp.	-60°C ~ +125°C
Storage Temp.	-60°C ~ +125°C

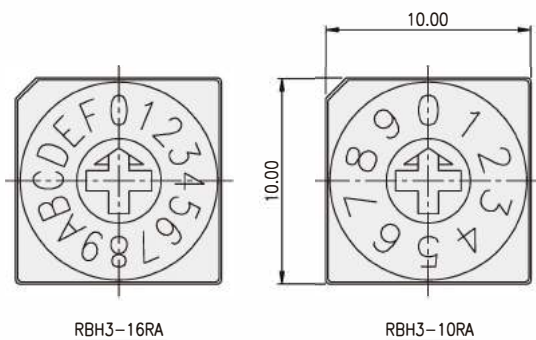
HOW TO ORDER



PACKAGE

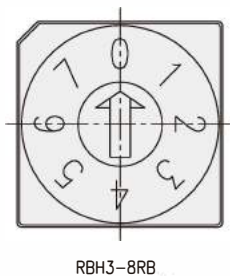
<Tube>
47 pcs
<Tape & Reel>
RBM: 450 pcs.

RBH3-☐☐RA

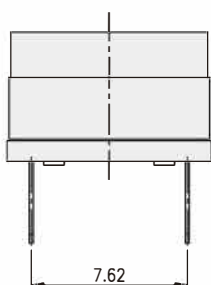


RBH3-16RA

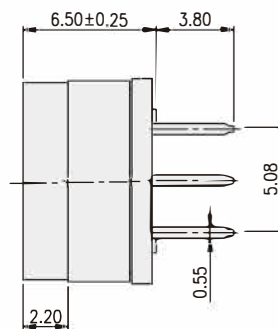
RBH3-10RA



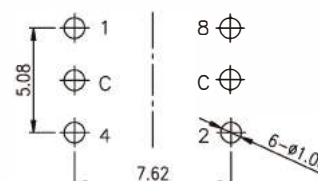
RBH3-8RB



7.62

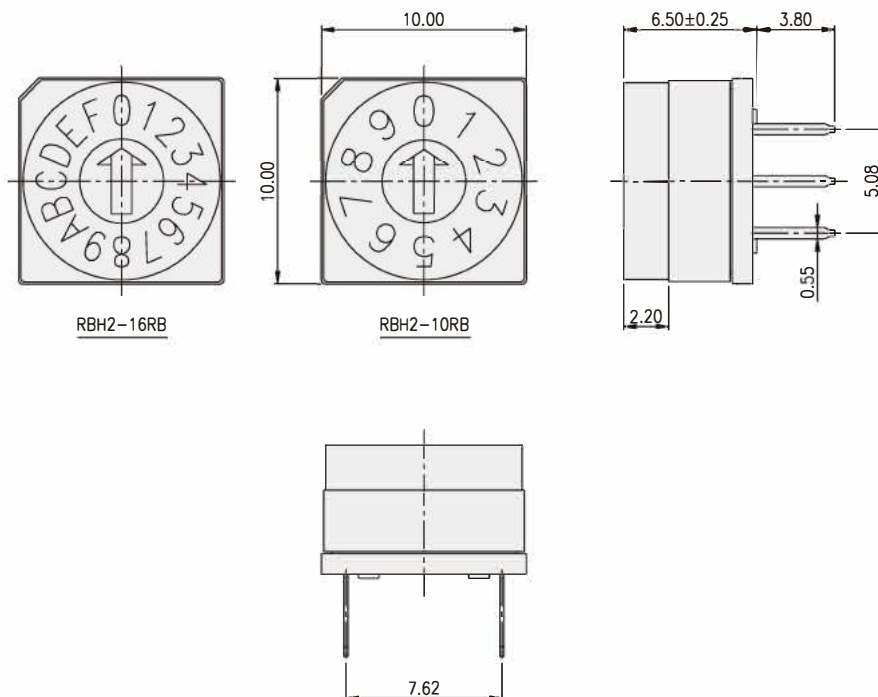


TYPE	POSITION	CODE			
		1	2	4	8
10R 08R	0	●	●	●	●
	1	○	●	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	●	○	●
	5	○	●	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	●	●	●	○
	9	○	●	●	○
16R	A	●	○	●	○
	B	○	○	●	○
	C	●	●	○	○
	D	○	●	○	○
	E	●	○	○	○
	F	○	○	○	○

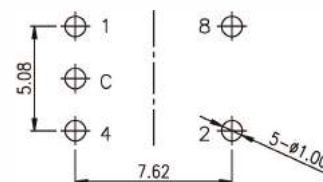


P.C.B. LAYOUT

RBH2-□□RB

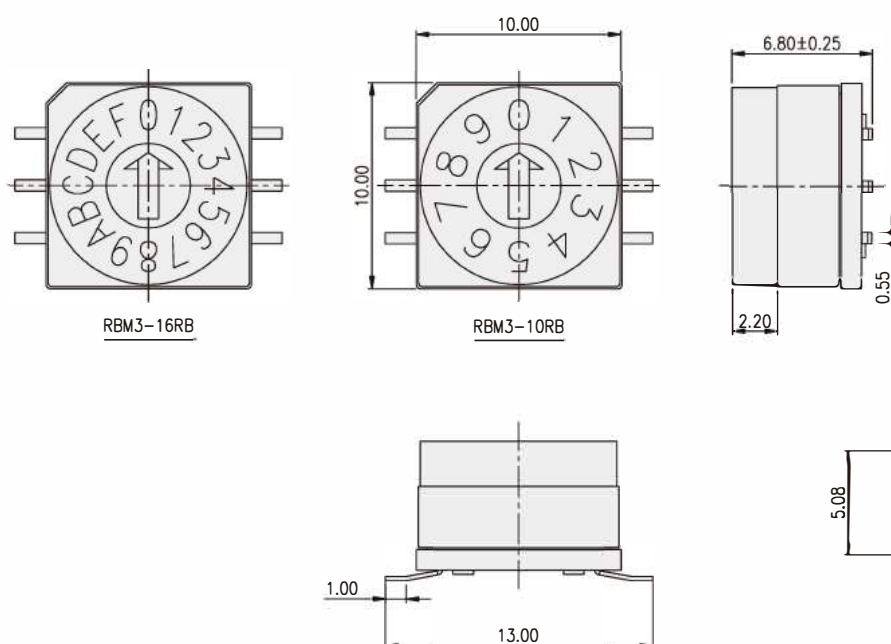


TYPE	POSITION	CODE			
		1	2	4	8
10R	0	●	●	●	●
	1	○	○	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	●	○	●
	5	○	○	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	●	●	●	○
	9	○	○	○	○
16R	A	●	○	●	○
	B	○	○	●	○
	C	●	●	○	○
	D	○	○	○	○
	E	●	○	○	○
	F	○	○	○	○

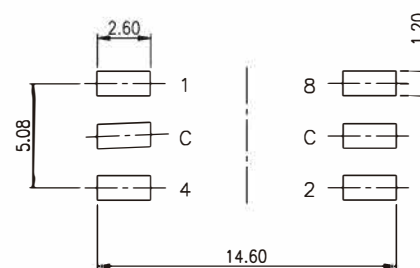


P.C.B. LAYOUT

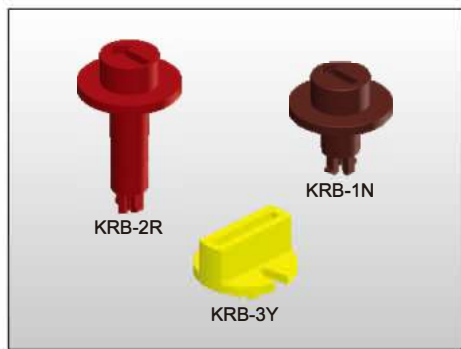
RBM3-□□RB



TYPE	POSITION	CODE			
		1	2	4	8
10R	0	●	●	●	●
	1	○	●	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	○	○	●
	5	○	●	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	○	○	●	○
	9	○	●	●	○
16R	A	●	○	○	○
	B	○	○	●	○
	C	●	●	○	○
	D	○	○	○	○
	E	●	○	○	○
	F	○	○	○	○



P.C.B. LAYOUT



HOW TO ORDER

KRB -

Cap Color:
K=Black
N=Brown
B=Blue
Ge=Grey
R=Red
Y=Yellow

Knob Type:
1= Short Spindle
2= Long Spindle
3=Segment Wheel

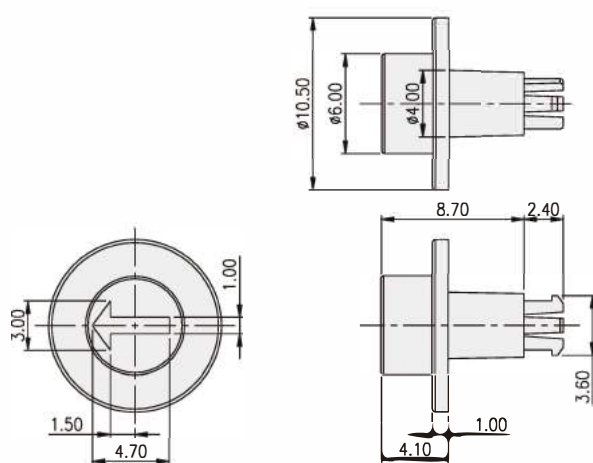
PACKAGE

<Bag>

KRB-1, KRB-2: 500 pcs.

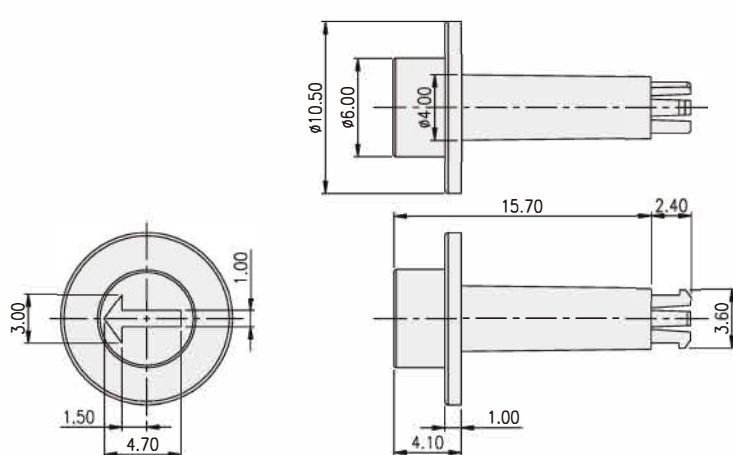
KRB-3: 1000 pcs.

KRB-1



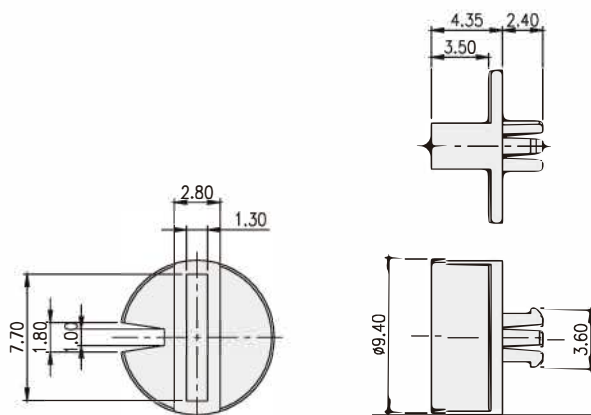
PART NO.	COLOR
KRB-1K	BLACK
KRB-1N	BROWN
KRB-1R	RED
KRB-1B	BLUE
KRB-1Y	YELLOW
KRB-1Ge	GREY

KRB-2



PART NO.	COLOR
KRB-2K	BLACK
KRB-2N	BROWN
KRB-2R	RED
KRB-2B	BLUE
KRB-2Y	YELLOW
KRB-2Ge	GREY

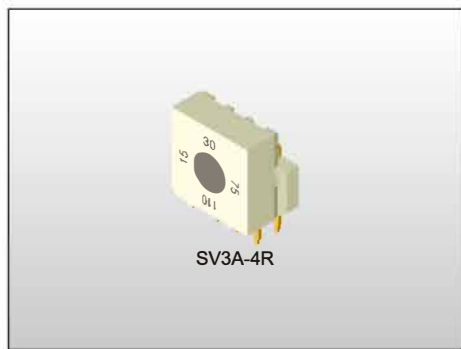
KRB-3



PART NO.	COLOR
KRB-3K	BLACK
KRB-3N	BROWN
KRB-3R	RED
KRB-3B	BLUE
KRB-3Y	YELLOW
KRB-3Ge	GREY

ROTARY CODED SWITCH **SV3A-4** SERIES

10x10mm
Selector Rotary Type



FEATURES

- ※Through hole pin type
- ※Flush Actuator
- ※20,000 steps mechanical Life

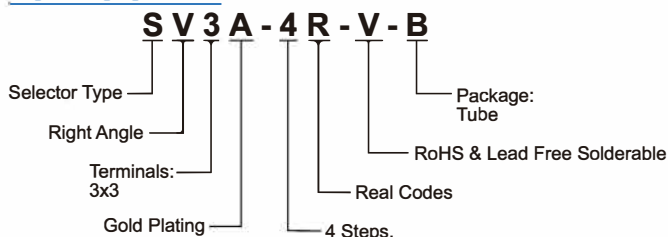
APPLICATION

- ※Building & home automation
- ※White goods
- ※Electronic instrument

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 250V DC
Dielectric Strength	250V AC/1 minute
Operating Force	200gf·cm max.
Operating Life	20,000 steps
Operating Temp.	-25°C ~ +80°C
Storage Temp.	-40°C ~ +85°C

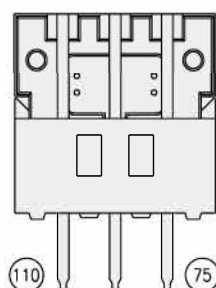
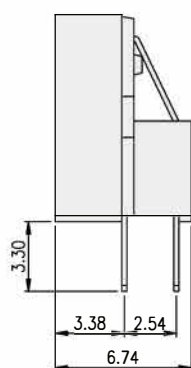
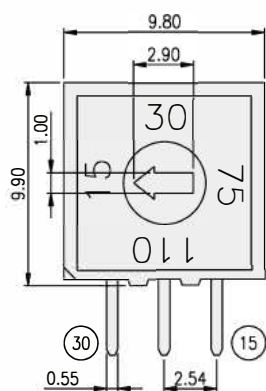
HOW TO ORDER



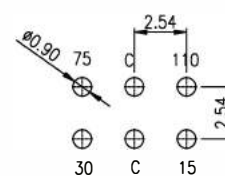
PACKAGE

<Tube>
 48 pcs

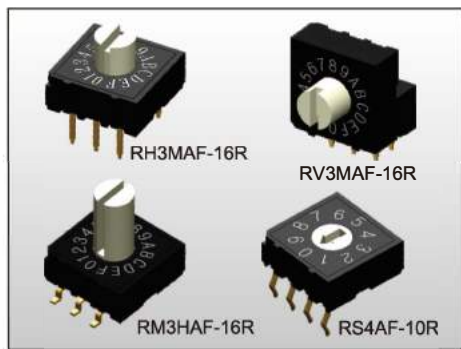
SV3A-4



○ ON				
● OFF				
POSITION	CODE			
	15	30	75	110
15	○	●	●	●
30	●	○	●	●
75	●	●	○	●
110	●	●	●	○



P.C.B. LAYOUT



FEATURES

- ※Vertical and right angel type
- ※Flush & raised actuator
- ※BCD; Hexadecimal

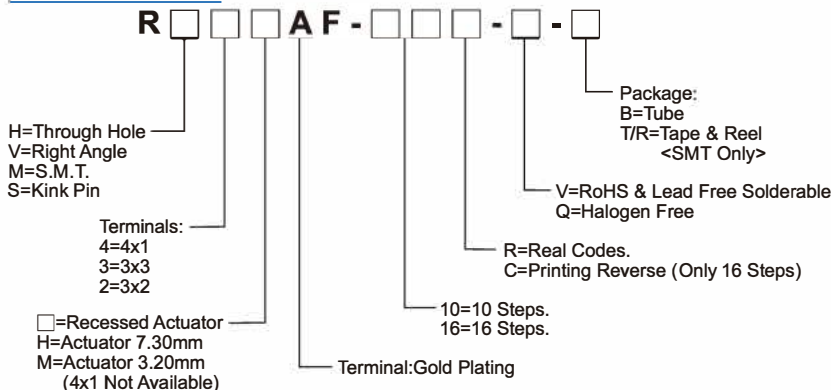
APPLICATION

- ※Building & home automation
- ※White goods
- ※Electronic instrument

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 250V DC
Dielectric Strength	250V AC/1 minute
Operating Force	400gf·cm max.
Operating Life	20,000 Steps
Operating Temp.	-25°C ~ +80°C
Storage Temp.	-40°C ~ +85°C

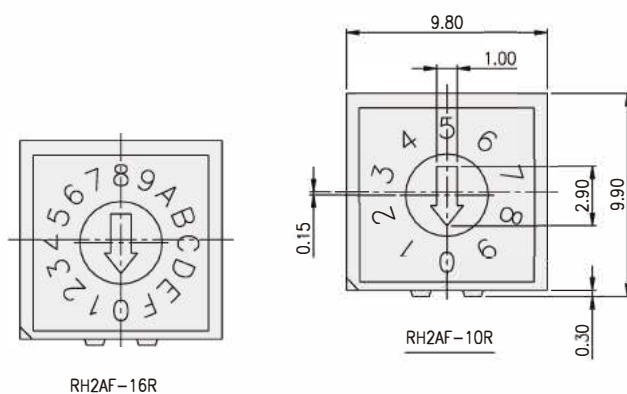
HOW TO ORDER



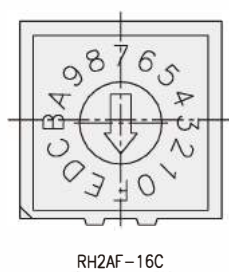
PACKAGE

- <Tube>
48 pcs
- <Tape & Reel>
750 pcs (recessed actuator)
500 pcs (3.2mm actuator)
250 pcs (7.3mm actuator)

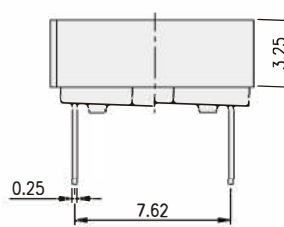
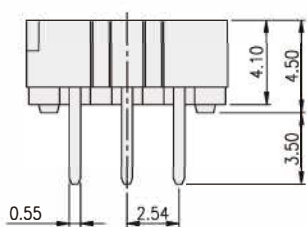
RH2



RH2AF-16R



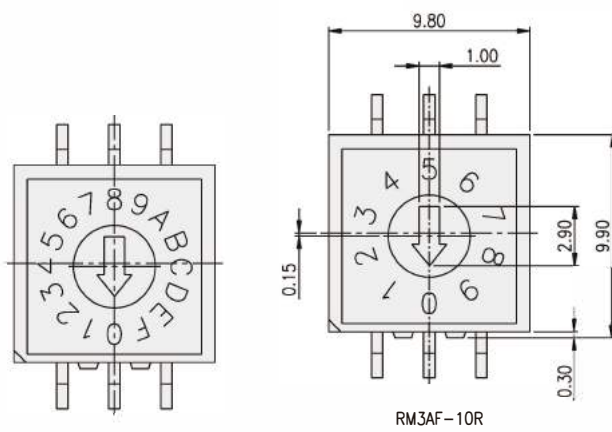
RH2AF-16C



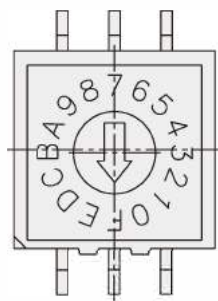
TYPE	POSITION	CODE			
		1	2	4	8
10R	0	F	●	●	●
	1	E	○	●	●
	2	D	●	○	●
	3	C	○	○	●
	4	B	●	●	○
	5	A	○	●	○
	6	9	●	○	○
	7	8	○	○	○
	8	7	●	●	○
	9	6	○	●	○
16R,C	A	5	○	○	○
	B	4	○	○	○
	C	3	●	●	○
	D	2	○	●	○
	E	1	●	○	○
	F	0	○	○	○

P.C.B. LAYOUT

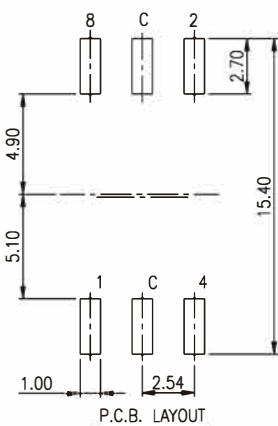
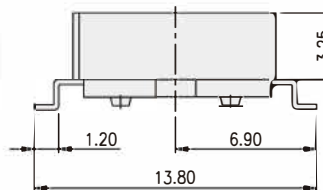
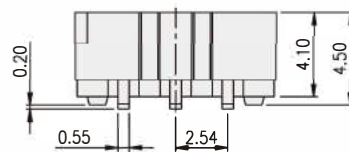
RM3



RM3AF-16R

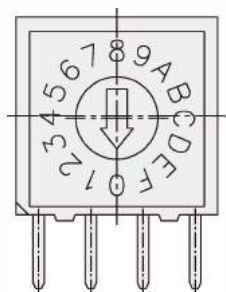


RM3AF-16C

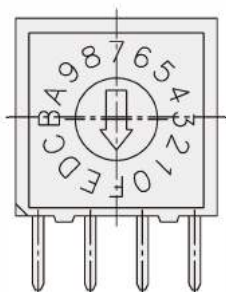


		○ ON					
		● OFF					
TYPE		POSITION	CODE				
		□OR 16C	1	2	4	8	
10R	0	F	●	●	●	●	
	1	E	○	●	●	●	
	2	D	●	○	●	●	
	3	C	○	○	●	●	
	4	B	●	●	○	●	
	5	A	○	●	○	●	
	6	9	●	○	○	●	
	7	8	○	○	○	●	
	8	7	●	●	●	○	
	9	6	○	●	●	○	
16R,C	A	5	●	○	●	○	
	B	4	○	○	●	○	
	C	3	●	●	○	○	
	D	2	○	●	○	○	
	E	1	●	○	○	○	
	F	0	○	○	○	○	

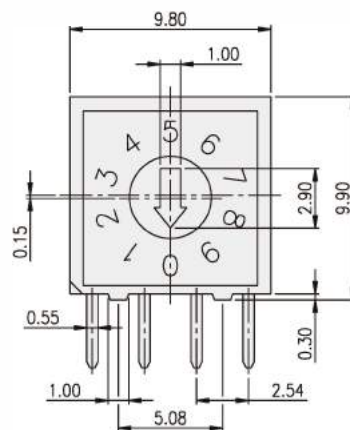
RV4



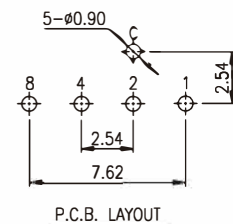
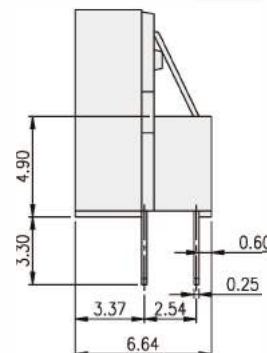
RV4AF-16R



RV4AF-16C

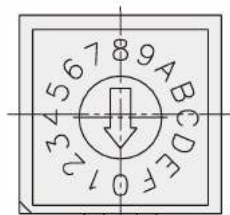


RV4AF-10R

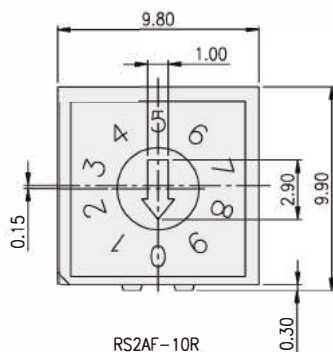


		○ ON ● OFF				
TYPE		POSITION	CODE			
		□OR 16C	1	2	4	8
10R	0	F	●	●	●	●
	1	E	○	●	●	●
	2	D	●	○	●	●
	3	C	○	○	●	●
	4	B	●	●	○	●
	5	A	○	●	○	●
	6	9	●	○	○	●
	7	8	○	○	○	●
	8	7	●	●	●	○
	9	6	○	●	●	○
16R,C	A	5	●	○	●	○
	B	4	○	○	●	○
	C	3	●	●	○	○
	D	2	○	●	○	○
	E	1	●	○	○	○
	F	0	○	○	○	○

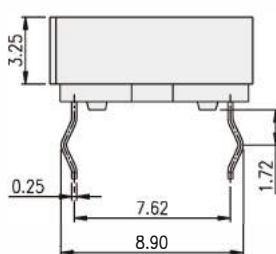
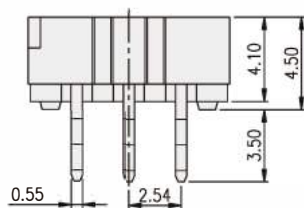
RS2



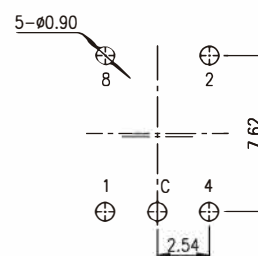
RS2AF-16R



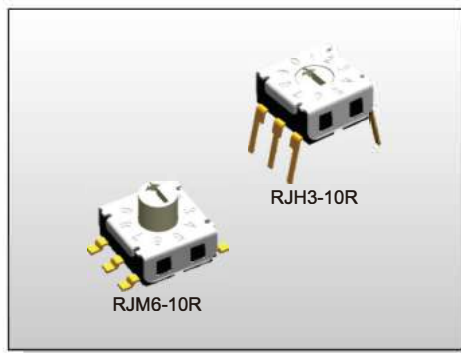
RS2AF-10R



TYPE	POSITION	CODE			
		1	2	4	8
10R	0	●	●	●	●
	1	○	●	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	●	○	●
	5	○	●	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	●	●	●	○
	9	○	○	●	○
16R	A	●	○	●	○
	B	○	○	●	○
	C	●	●	○	○
	D	○	●	○	○
	E	●	○	○	○
	F	○	○	○	○



P.C.B. LAYOUT



FEATURES

- ※Center common terminal pin
- ※Through hole or SMT
- ※Flush & raised actuator

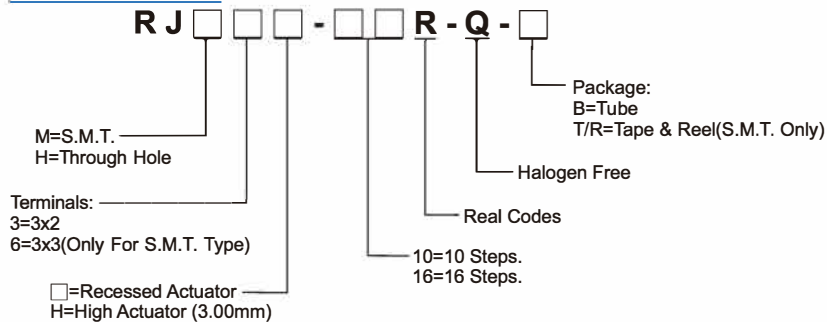
APPLICATION

- ※Industrial equipment
- ※Power supply
- ※Safety relay

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	200gf-cm max.
Operating Life	20, 000 Steps
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

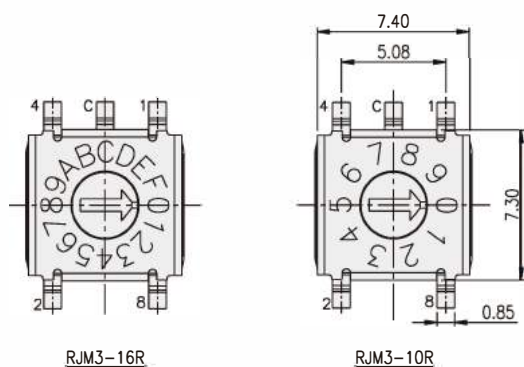
HOW TO ORDER



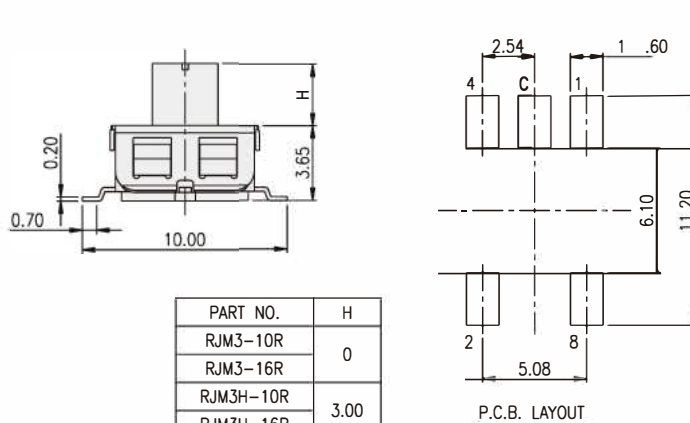
PACKAGE

<Tube>
62 pcs
<Tape & Reel>
RJM3H: 650 pcs
RJM6H: 300 pcs

RJM3

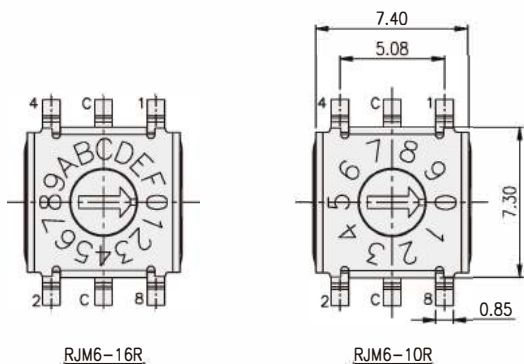


TYPE	POSITION	CODE			
		1	2	4	8
1 OR 16R	0	●	●	●	●
	1	○	●	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	●	○	●
	5	○	●	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	○	●	●	○
	9	○	●	●	○
16R	A	●	○	●	○
	B	○	○	○	○
	C	●	●	○	○
	D	○	●	○	○
	E	●	○	○	○
	F	○	○	○	○



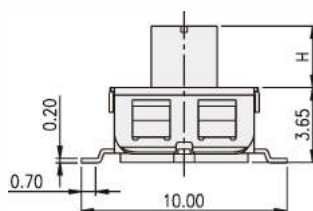
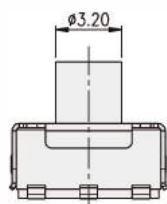
PART NO.	H
RJM3-10R	0
RJM3-16R	0
RJM3H-10R	3.00
RJM3H-16R	3.00

RJM6

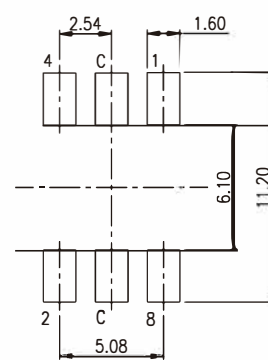


RJM6-16R

RJM6-10R



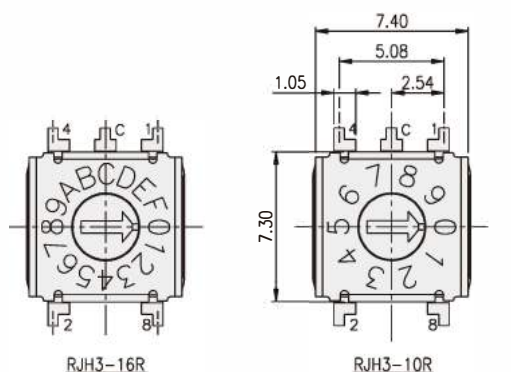
PART NO.	H
RJM6-10R	0
RJM6-16R	0
RJM6H-10R	3.00
RJM6H-16R	3.00



P.C.B. LAYOUT

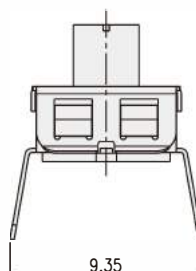
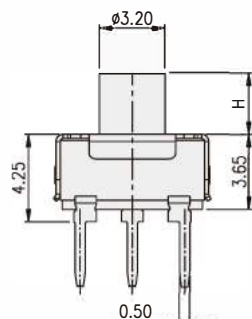
TYPE	POSITION	CODE			
		1	2	4	8
10R	0	●	●	●	●
	1	○	●	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	●	○	●
	5	○	●	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	●	●	●	○
	9	○	●	●	○
16R	A	●	○	○	○
	B	○	○	●	○
	C	●	●	○	○
	D	○	●	○	○
	E	●	○	○	○
	F	○	○	○	○

RJH3

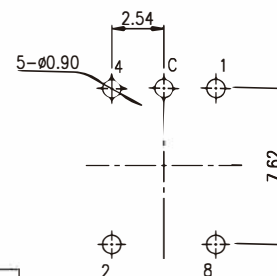


RJH3-16R

RJH3-10R

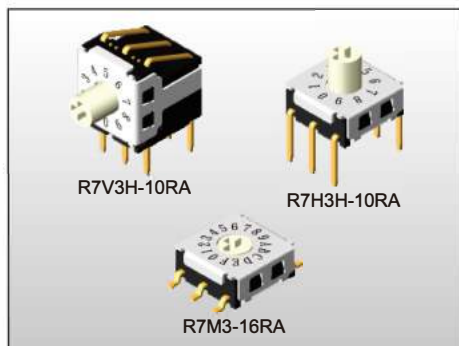


PART NO.	H
RJH3-10R	0
RJH3-16R	0
RJH3H-10R	3.00
RJH3H-16R	3.00



P.C.B. LAYOUT

TYPE	POSITION	CODE			
		1	2	4	8
10R	0	●	●	●	●
	1	○	●	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	●	○	●
	5	○	●	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	●	●	●	○
	9	○	●	●	○
16R	A	●	○	○	○
	B	○	○	●	○
	C	●	●	○	○
	D	○	●	○	○
	E	●	○	○	○
	F	○	○	○	○



FEATURES

- ※Vertical and right angle types
- ※Miniature size with stainless steel cover
- ※Low profile (3.0mm)

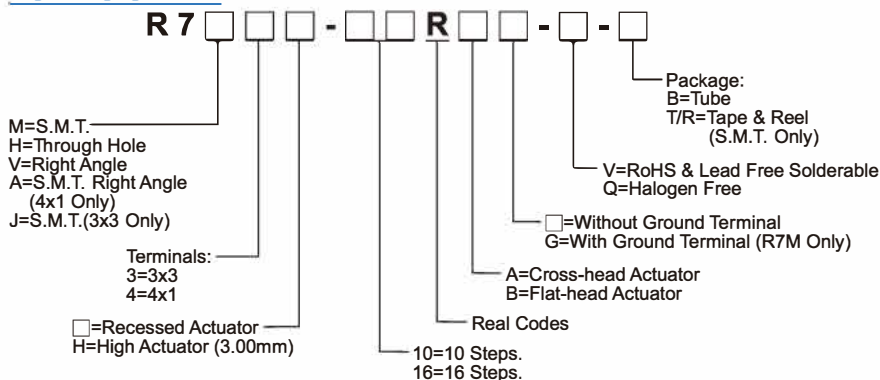
APPLICATION

- ※Instrumentation
- ※Industrial automation
- ※Building & Home automation

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	200gf-cm max.
Operating Life	10, 000 Steps
Operating Temp.	-30°C ~ +80°C
Storage Temp.	-40°C ~ +85°C

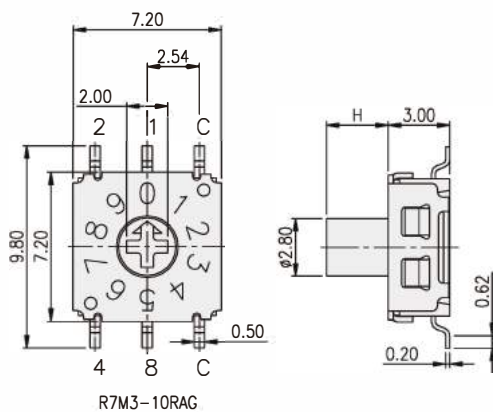
HOW TO ORDER



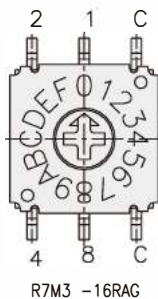
PACKAGE

<Tube>
R7H, R7M: 63 pcs
R7V: 60 pcs
<Tape & Reel>
R7M*: 1450 pcs
R7M*H: 850 pcs
R7A: 750 pcs
R7A4H: 750 pcs
R7J: 1450 pcs

R7M3-10RAG



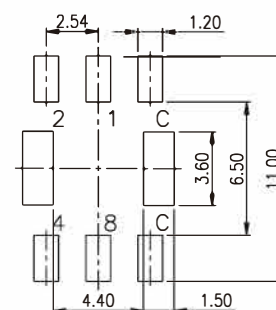
R7M3-10RAG



R7M3-16RAG

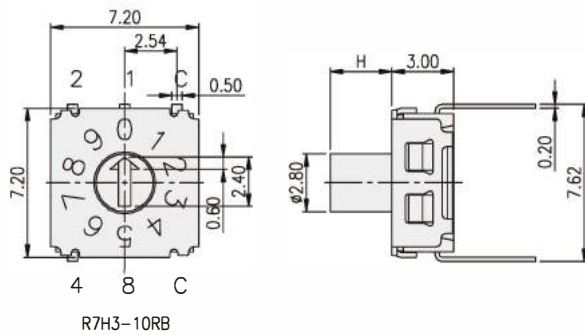
TYPE	POSITION	CODE			
		1	2	4	8
10R	0	●	●	●	●
	1	○	●	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	●	○	●
	5	○	●	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	●	●	●	○
	9	○	●	●	○
16R	A	●	○	●	○
	B	○	○	●	○
	C	●	●	○	○
	D	○	●	○	○
	E	●	○	○	○
	F	○	○	○	○

PART NO.	H
R7M3-10RAG	0
R7M3-16RAG	0
R7M3H-10RAG	3.00
R7M3H-16RAG	3.00

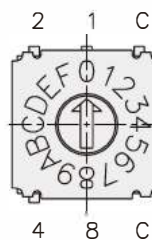


P.C.B. LAYOUT

R7H3



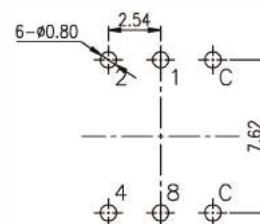
R7H3-10RB



R7H3-16RB

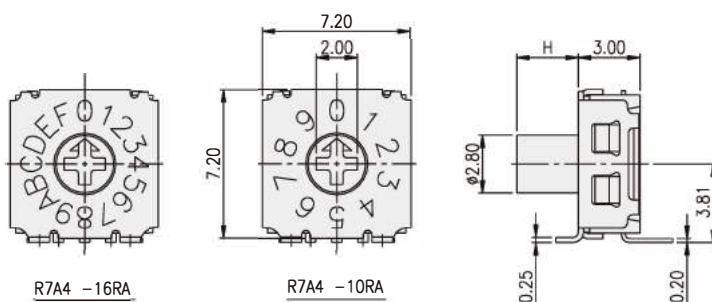
PART NO.	H
R7H3-10RB	0
R7H3-16RB	0
R7H3H-10RB	3.00
R7H3H-16RB	3.00

TYPE	POSITION	CODE			
		1	2	4	8
10R	0	●	●	●	●
	1	○	○	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	●	○	●
	5	○	○	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	●	●	●	○
	9	○	○	○	○
16R	A	●	○	●	○
	B	○	○	●	○
	C	●	○	○	○
	D	○	●	○	○
	E	●	○	○	○
	F	○	○	○	○



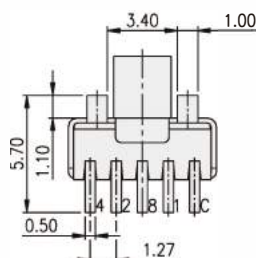
P.C.B. LAYOUT

R7A4



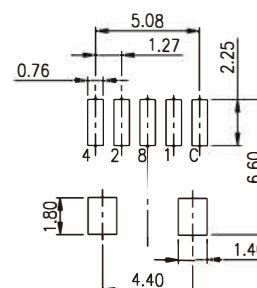
R7A4-16RA

R7A4-10RA



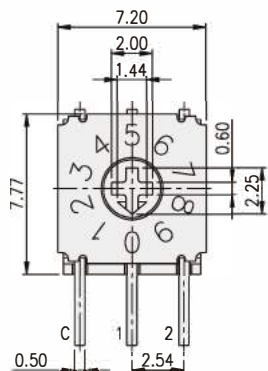
PART NO.	H
R7A4-10RA	0
R7A4-16RA	0
R7A4H-10RA	3.00
R7A4H-16RA	3.00

TYPE	POSITION	CODE			
		1	2	4	8
10R	0	●	●	●	●
	1	○	○	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	●	○	●
	5	○	○	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	●	●	●	○
	9	○	○	○	○
16R	A	●	○	●	○
	B	○	○	●	○
	C	●	○	○	○
	D	○	●	○	○
	E	●	○	○	○
	F	○	○	○	○

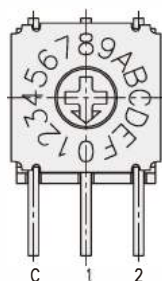
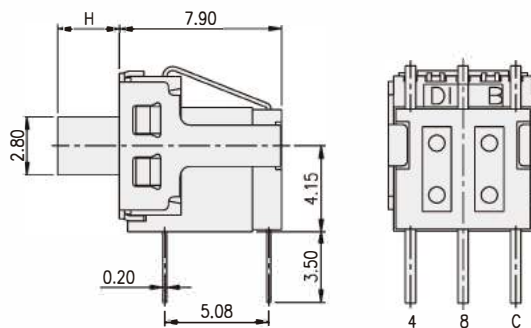


P.C.B. LAYOUT

R7V3



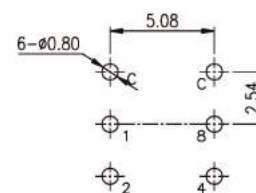
R7V3 -10RA



R7V3 -16RA

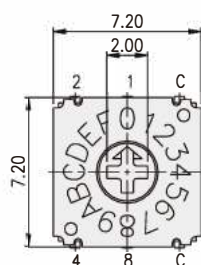
PART NO.	H
R7V3-10RA	0
R7V3-16RA	0
R7V3H-10RA	3.00
R7V3H-16RA	3.00

TYPE	POSITION	CODE			
		1	2	4	8
10R	0	●	●	●	●
	1	○	○	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	○	○	●
	5	○	●	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	●	○	●	○
	9	○	●	●	○
16R	A	●	○	●	○
	B	○	○	●	○
	C	●	●	○	○
	D	○	●	○	○
	E	●	○	○	○
	F	○	○	○	○

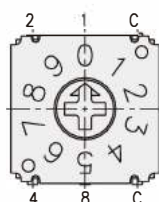
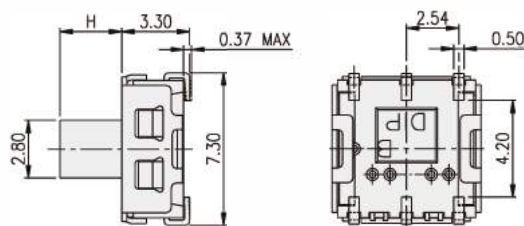


P.C.B. LAYOUT

R7J3



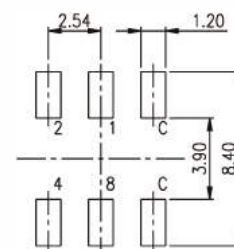
R7J3-16RA



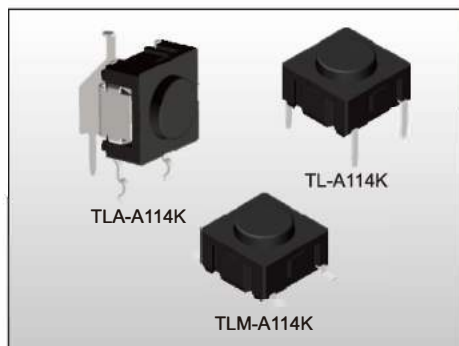
R7J3-10RA

PART NO.	H
R7J3-10RA	0
R7J3-16RA	0
R7J3H-10RA	3.00
R7J3H-16RA	3.00

TYPE	POSITION	CODE			
		1	2	4	8
10R	0	●	●	●	●
	1	○	○	●	●
	2	●	○	●	●
	3	○	○	●	●
	4	●	○	○	●
	5	○	●	○	●
	6	●	○	○	●
	7	○	○	○	●
	8	●	○	●	○
	9	○	●	●	○
16R	A	●	○	●	○
	B	○	○	●	○
	C	●	●	○	○
	D	○	○	○	○
	E	●	○	○	○
	F	○	○	○	○



P.C.B. LAYOUT



FEATURES

- ※ Sealed
- ※ Long life of 10million
- ※ Variety of actuator lengths

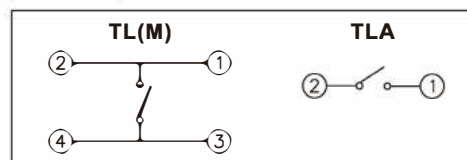
APPLICATION

- ※ Music instrument
- ※ Intercom system
- ※ Industrial

SPECIFICATION

Contact Rating	0.5~50mA, 24V DC
Contact Resistance	30mΩ max.
Insulation Resistance	10MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	300±75gf
Travel	1mm
Operating Life	10,000, 000 cycles
Operating Temp.	-40°C ~ +160°C
Storage Temp.	-40°C ~ +160°C

CIRCUIT



PACKAGE

<Tube>
TL(A): 45 pcs
<Tape & Reel>
TLM: 650 pcs

HOW TO ORDER

TL ☐ - A 114 K - Q - ☐

Solder Type:
☐=Through Hole
M=S.M.T.
A=Right Angle

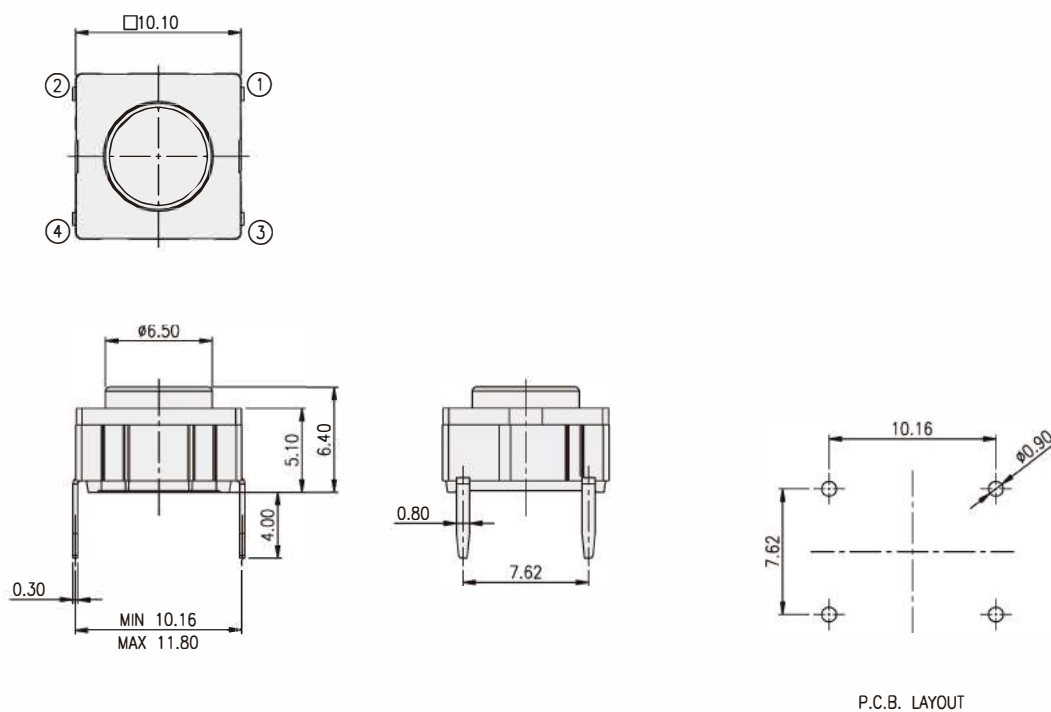
Package:
B=Tube
(For Through Hole Type)
T/R=Tape & Reel(For S.M.T. Type)

Halogen Free

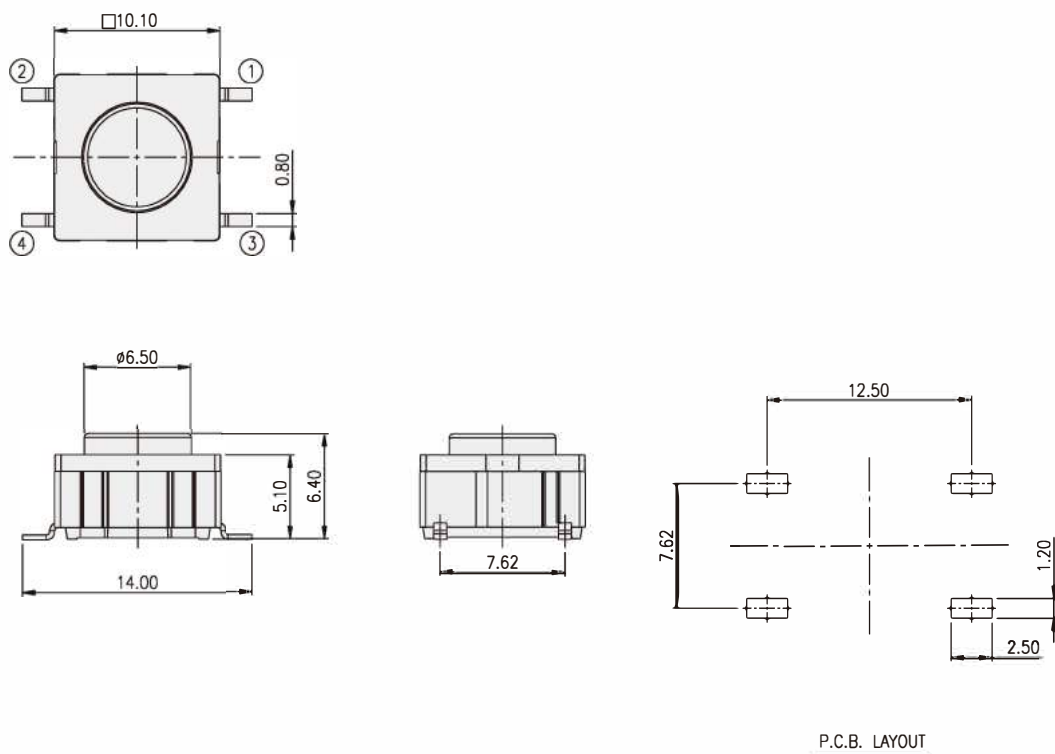
Button Color:
Black

Operating Force:
300gf

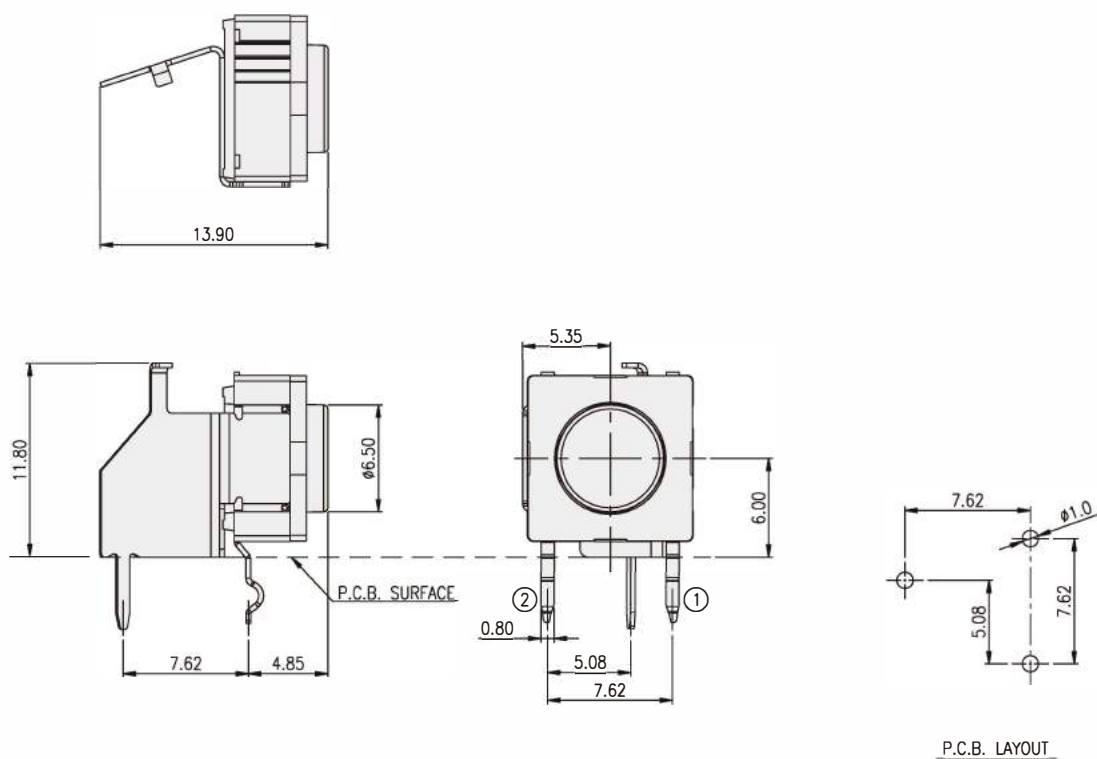
TL-A114K

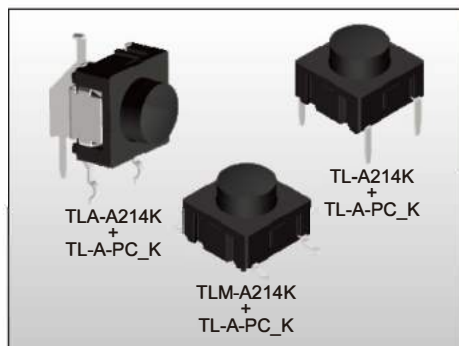


TLM-A114K



TLA-A114K





FEATURES

- ※ Sealed
- ※ Long life of 10million
- ※ Variety of actuator lengths

APPLICATION

- ※ Music instrument
- ※ Intercom system
- ※ Industrial

SPECIFICATION

Contact Rating	0.5~50mA, 24V DC
Contact Resistance	30mΩ max.
Insulation Resistance	10MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	300±75gf
Travel	1mm
Operating Life	10,000, 000 cycles
Operating Temp.	-40°C ~ +160°C
Storage Temp.	-40°C ~ +160°C

HOW TO ORDER

TL ☐ - A 2 1 4 K - Q - ☐ + TL - A - PC ☐ K

☐=Through Hole
M=S.M.T.
A=Right Angle

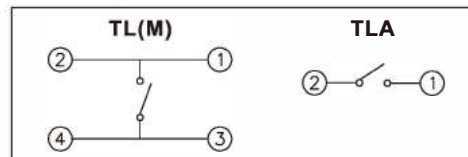
Package:
B=Tube
(For Through Hole Type)
T/R=Tape & Reel(For S.M.T. Type)

Halogen Free

Button Color:
Black

Operating Force:
300gf

CIRCUIT



PACKAGE

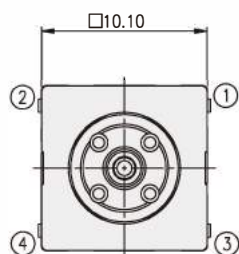
<Tube>

TL(A): 45 pcs

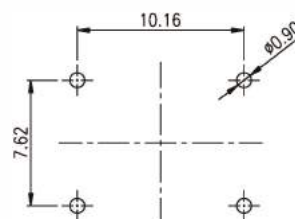
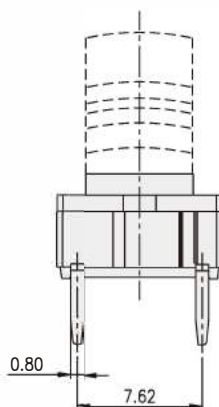
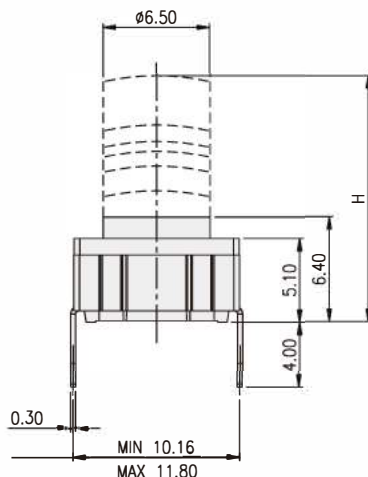
<Tape & Reel>

TLM: 650 pcs

TL-A214K+TL-A-PC☐K

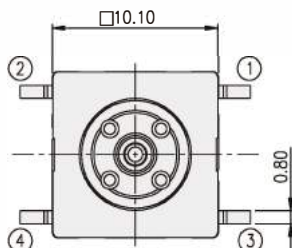


PART NO.	H
TL-A214K-Q-B+TL-A-PC1K	8.00
TL-A214K-Q-B+TL-A-PC2K	9.50
TL-A214K-Q-B+TL-A-PC3K	10.40
TL-A214K-Q-B+TL-A-PC4K	11.00
TL-A214K-Q-B+TL-A-PC5K	12.00
TL-A214K-Q-B+TL-A-PC6K	15.00

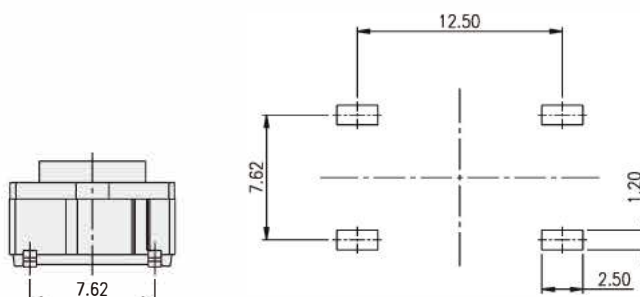
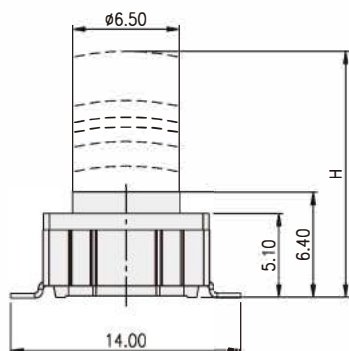


P.C.B. LAYOUT

TLM-A214K+TL-A-PC□K



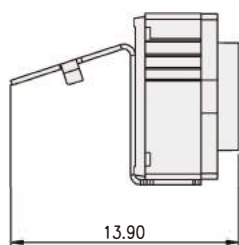
PART NO.	H
TLM-A214K-Q-B+TL-A-PC1K	8.00
TLM-A214K-Q-B+TL-A-PC2K	9.50
TLM-A214K-Q-B+TL-A-PC3K	10.40
TLM-A214K-Q-B+TL-A-PC4K	11.00
TLM-A214K-Q-B+TL-A-PC5K	12.00
TLM-A214K-Q-B+TL-A-PC6K	15.00



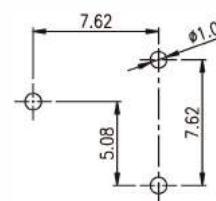
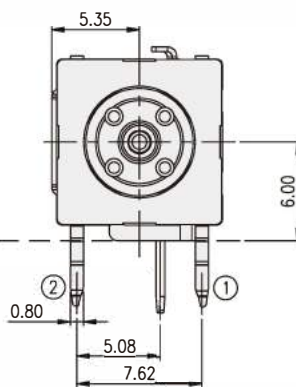
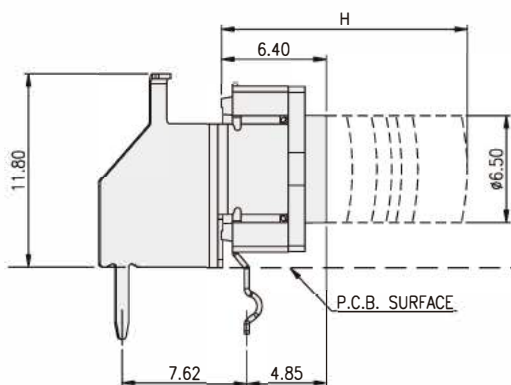
P.C.B. LAYOUT

TACT SWITCH

TLA-A214K+TL-A-PC□K



PART NO.	H
TLA-A214K-Q-B+TL-A-PC1K	8.00
TLA-A214K-Q-B+TL-A-PC2K	9.50
TLA-A214K-Q-B+TL-A-PC3K	10.40
TLA-A214K-Q-B+TL-A-PC4K	11.00
TLA-A214K-Q-B+TL-A-PC5K	12.00
TLA-A214K-Q-B+TL-A-PC6K	15.00



P.C.B. LAYOUT



FEATURES

- ※ Sealed
- ※ Long life of 10million
- ※ Variety of actuator lengths

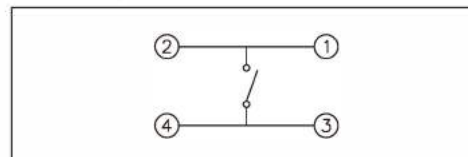
APPLICATION

- ※ Music instrument
- ※ Intercom system
- ※ Industrial

SPECIFICATION

Contact Rating	0.5~50mA, 24V DC
Contact Resistance	30mΩ max.
Insulation Resistance	10MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	300±75gf
Travel	1mm
Operating Life	10,000, 000 cycles
Operating Temp.	-40°C ~ +160°C
Storage Temp.	-40°C ~ +160°C

CIRCUIT



PACKAGE

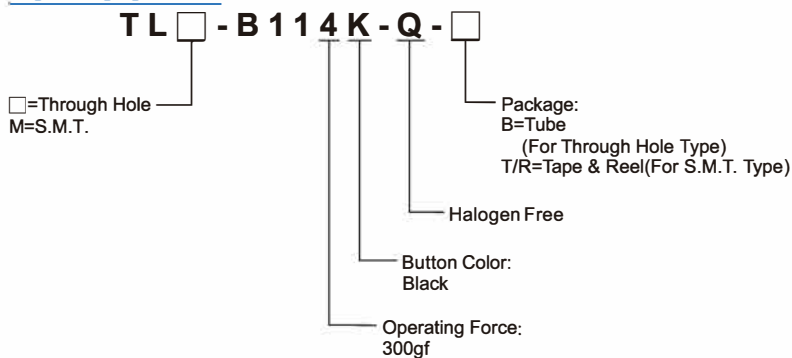
<Tube>

TL: 45 pcs

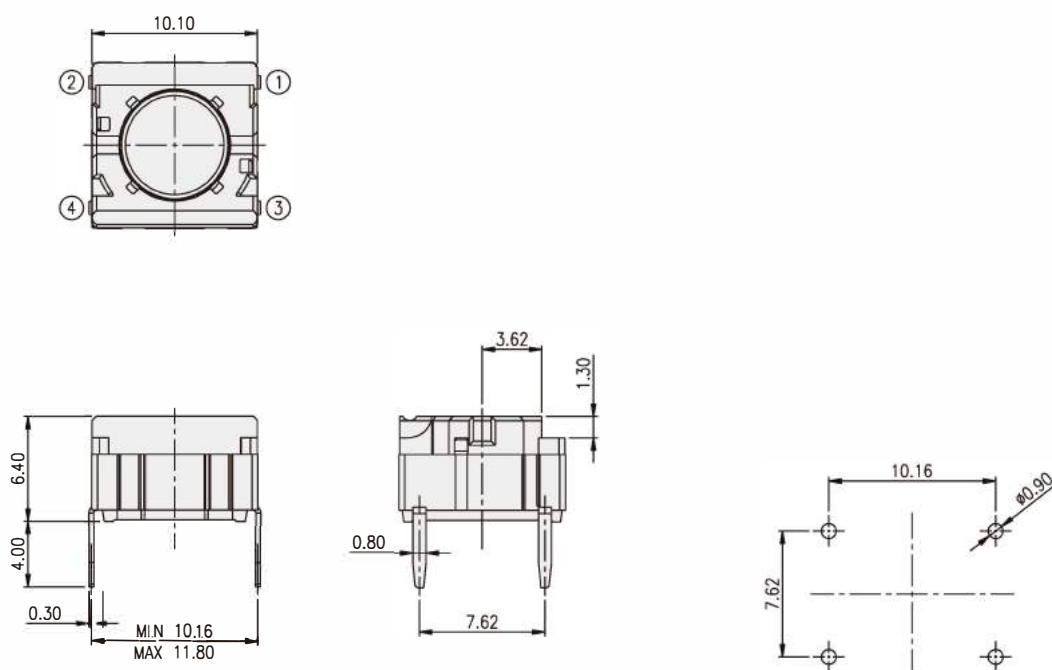
<Tape & Reel>

TLM: 650 pcs

HOW TO ORDER

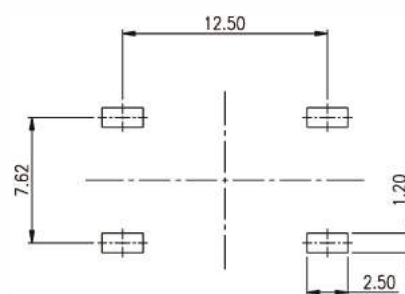
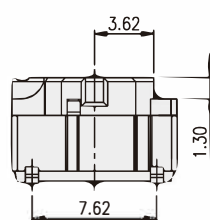
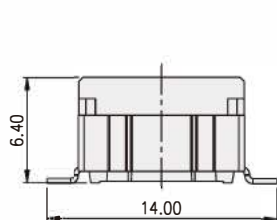
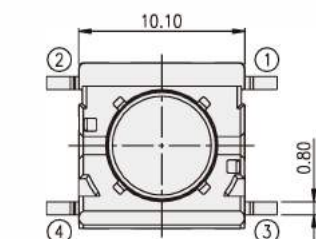


TL-B114K



P.C.B. LAYOUT

TLM-B114K



P.C.B. LAYOUT



FEATURES

- ※ Sealed
- ※ Long life of 10million
- ※ Variety of actuator lengths

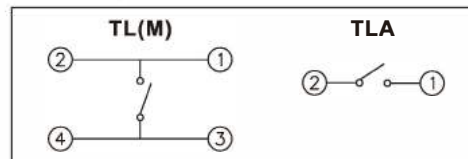
APPLICATION

- ※ Music instrument
- ※ Intercom system
- ※ Industrial

SPECIFICATION

Contact Rating	0.5~50mA, 24V DC
Contact Resistance	30mΩ max.
Insulation Resistance	10MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	300±75gf
Travel	1mm
Operating Life	10,000,000 cycles
Operating Temp.	-40°C ~ +160°C
Storage Temp.	-40°C ~ +160°C

CIRCUIT



PACKAGE

<Tube>
TL(A): 45 pcs
<Tape & Reel>
TLM: 300 pcs

HOW TO ORDER

TL ☐ - B 3 4 4 K - Q - ☐

☐=Through Hole
M=S.M.T.
A=Right Angle

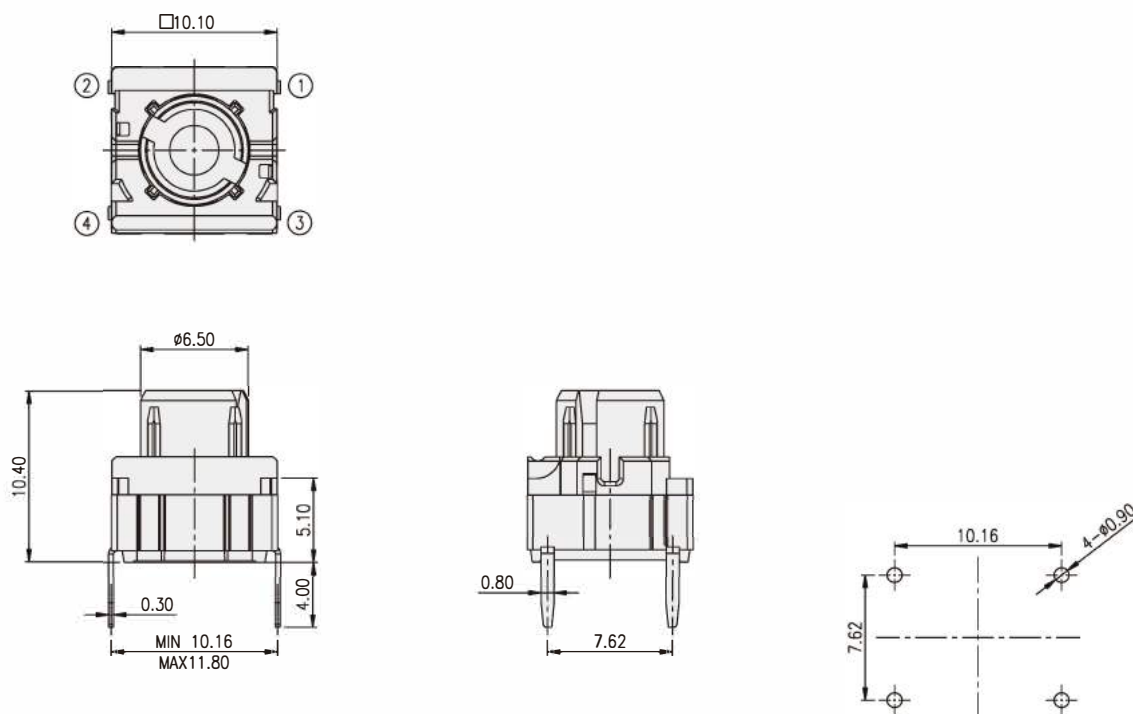
Package:
B=Tube
(For Through Hole Type)
T/R=Tape & Reel(For S.M.T. Type)

Halogen Free

Button Color:
Black

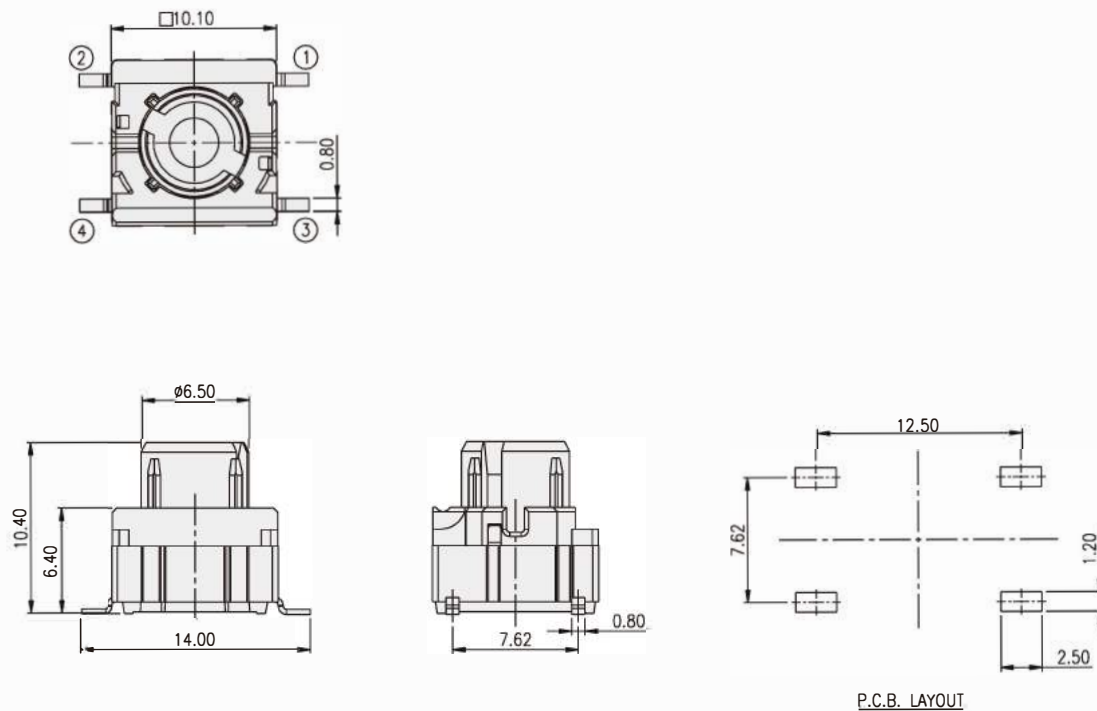
Operating Force:
300gf

TL-B344K

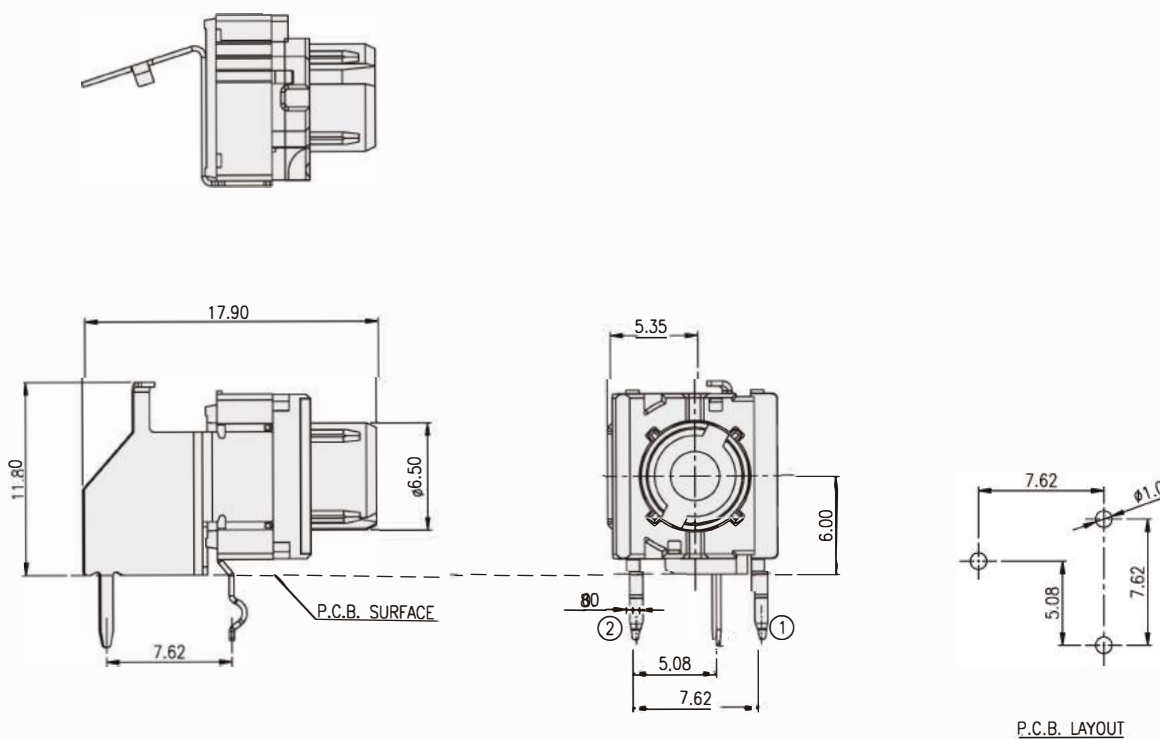


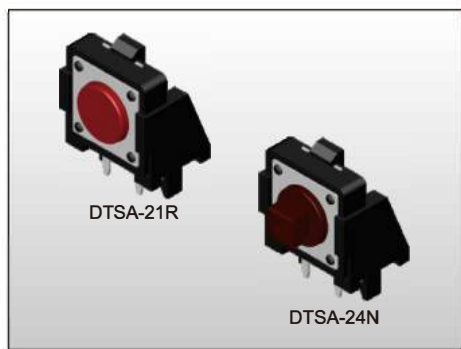
P.C.B. LAYOUT

TLM-B344K



TLA-B344K





FEATURES

- ※High reliable metal contacts
- ※Vertical operating available
- ※Cap options

APPLICATION

- ※Audio, OA equipment
- ※Instrumentation
- ※Industrial

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf, Brown(N) 260±50gf, Red(R) 320±80gf, Salmon(S) 520±130gf, Yellow(Y)
Travel	0.35mm
Operating Life	Phosphor Bronze Dome 100,000 cycles for 520/320/260gf 200,000 cycles for 160gf Stainless Steel Dome 300,000 cycles for 520/320gf 500,000 cycles for 260gf 1,000,000 cycles for 160gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER

DTSA - 2 ☐ - ☐ - V

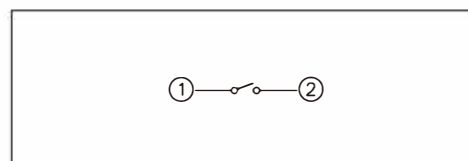
Dimension H:
1=3.65mm
4=6.45(SQ.)x3.8mm
5=7.85mm

RoHS & Lead Free Solderable

☐=Phosphor Bronze Dome
S=Stainless Steel Dome

Operating Force:
N=Brown, 160gf
R=Red, 260gf
S=Salmon, 320gf
Y=Yellow, 520gf

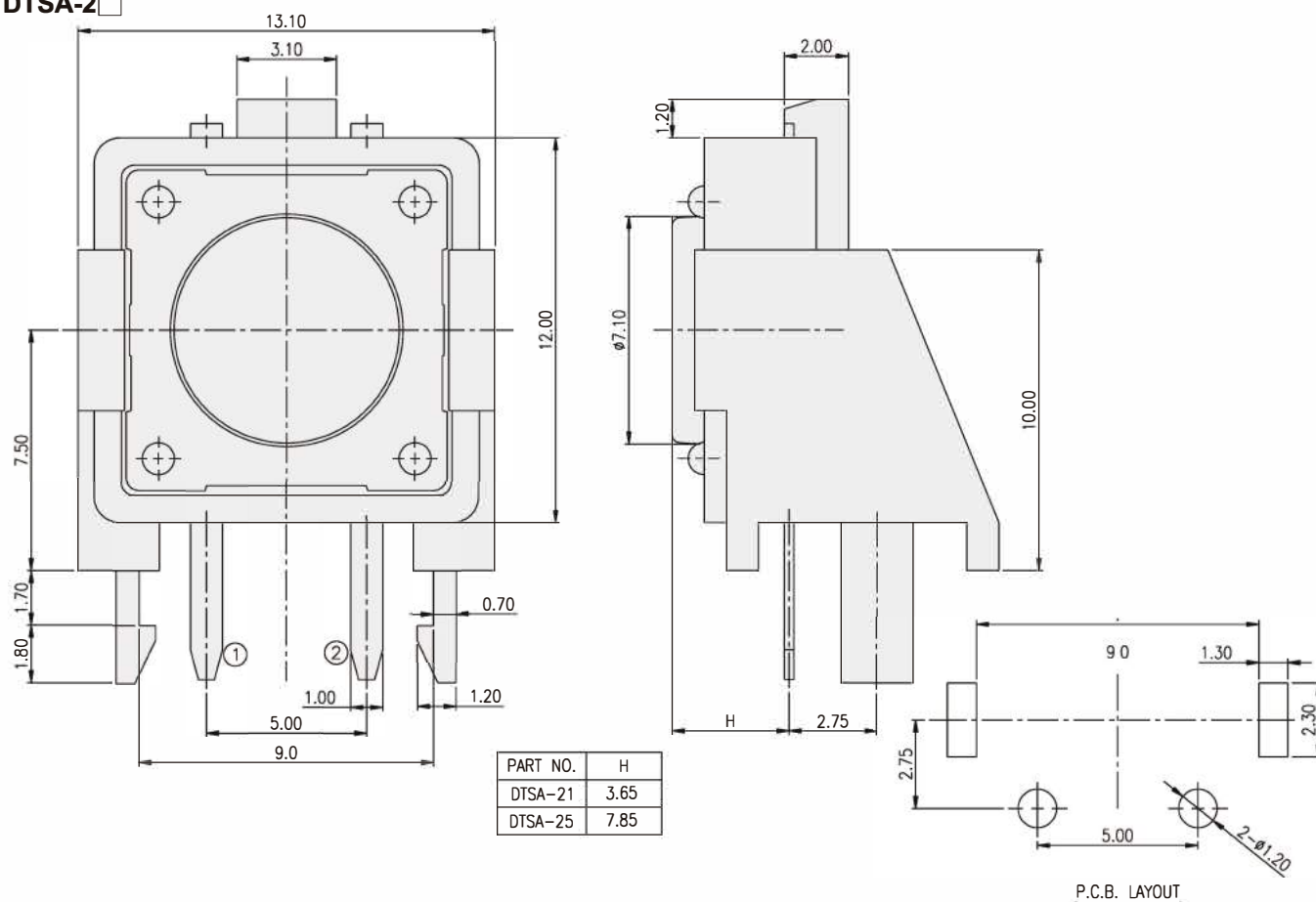
CIRCUIT



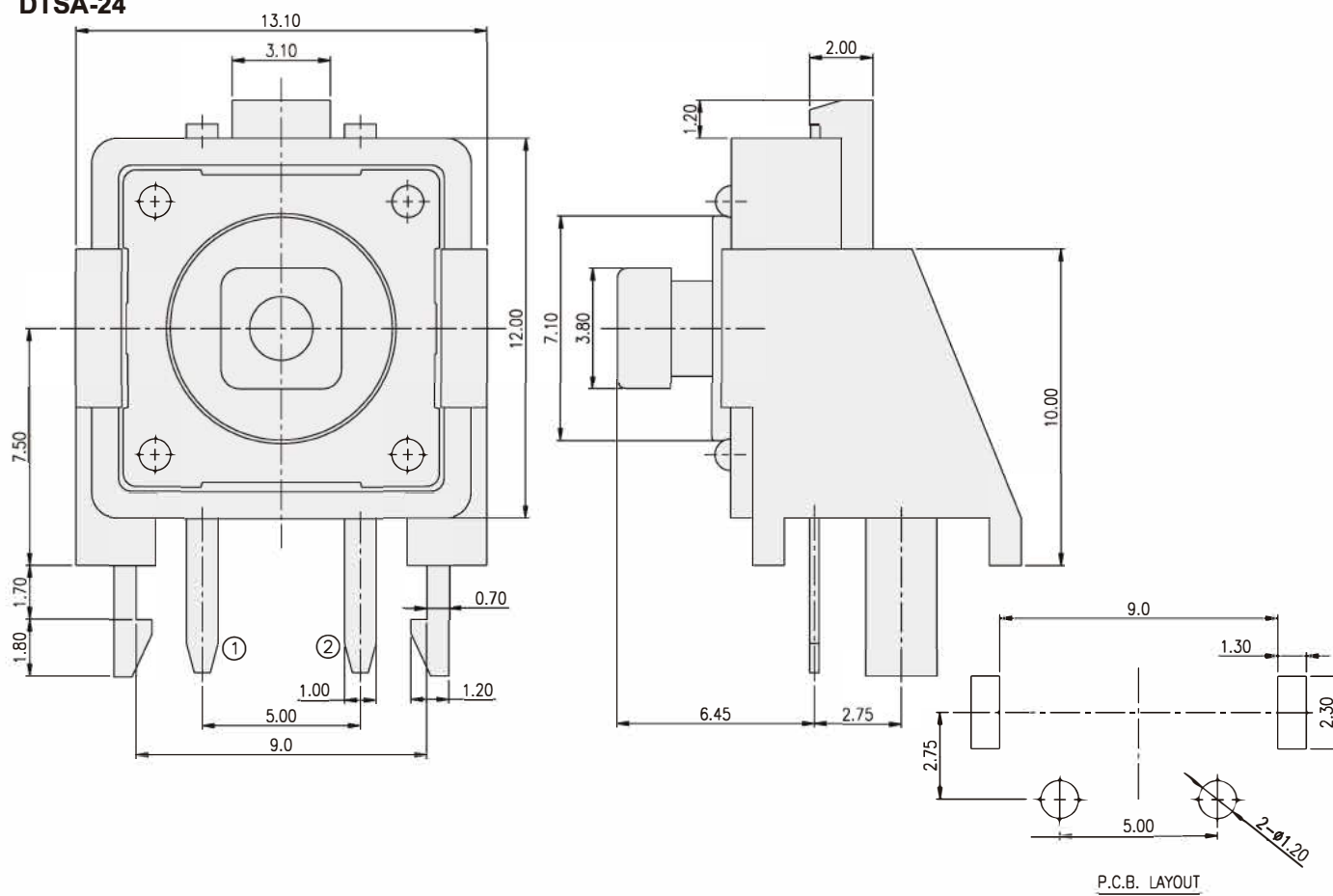
PACKAGE

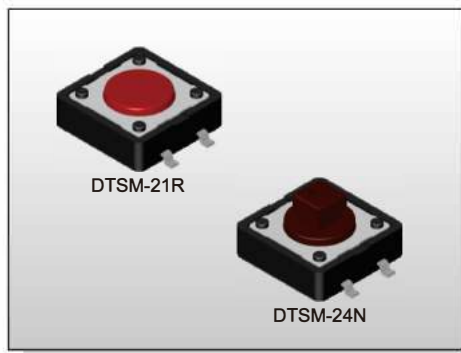
<Bag>
250 pcs

DTSA-2 ☐



DTSA-24





FEATURES

- ※High reliable metal contacts
- ※Reflow solderable
- ※Cap options

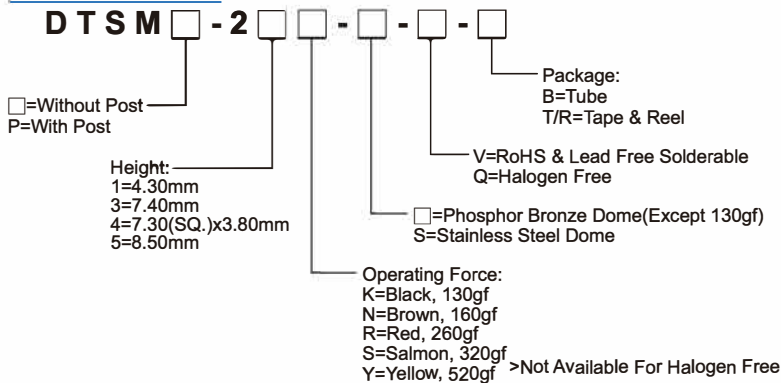
APPLICATION

- ※Audio, OA equipment
- ※Instrumentation
- ※Industrial

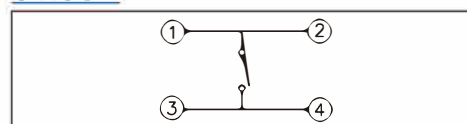
SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	130±50gf, Black(K) 160±50gf, Brown(N) 260±50gf, Red(R) 320±80gf, Salmon(S) 520±130gf, Yellow(Y)
Travel	0.35mm
Operating Life	Phosphor Bronze Dome 100,000 cycles for 520/320/260gf 200,000 cycles for 160gf Stainless Steel Dome 300,000 cycles for 520/320gf 500,000 cycles for 260gf 1,000,000 cycles for 160gf 10,000,000 cycles for 130gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER



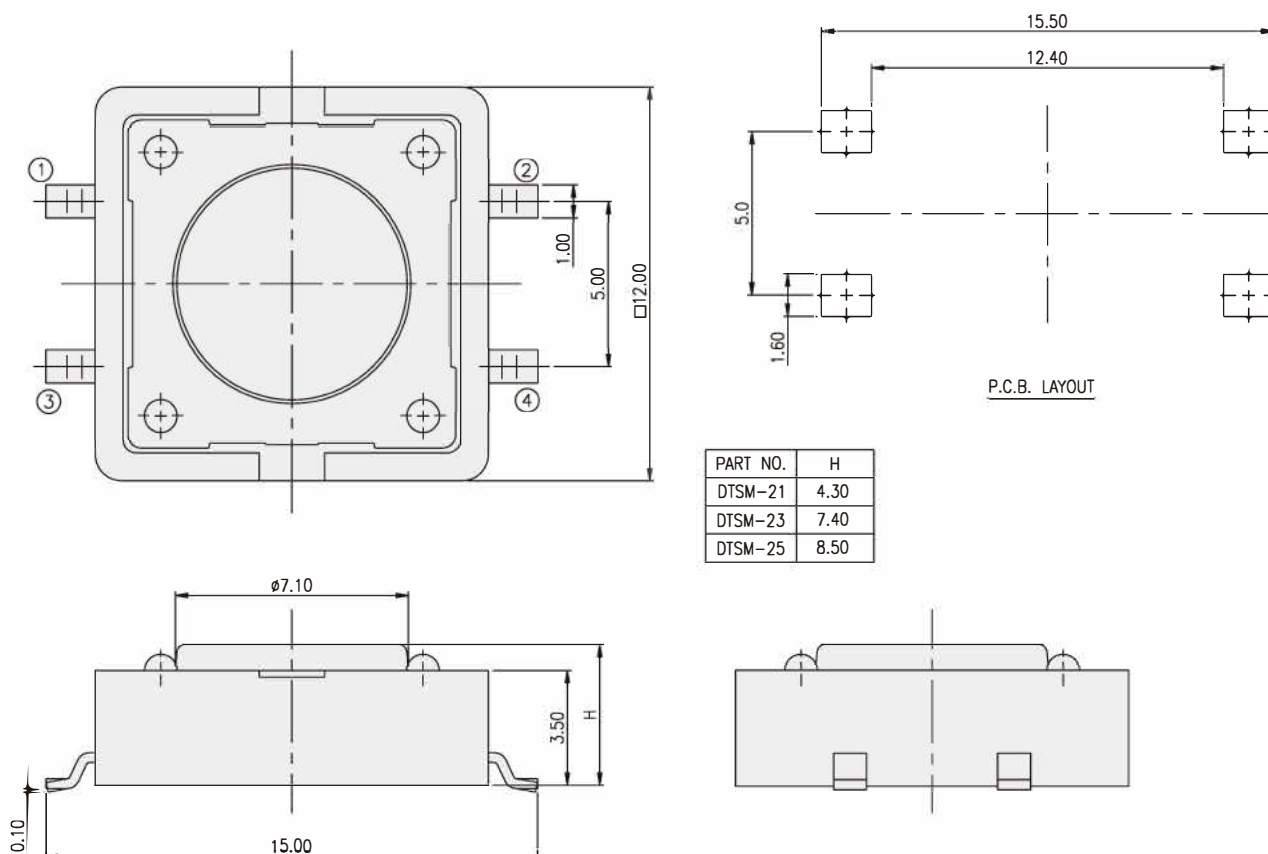
CIRCUIT



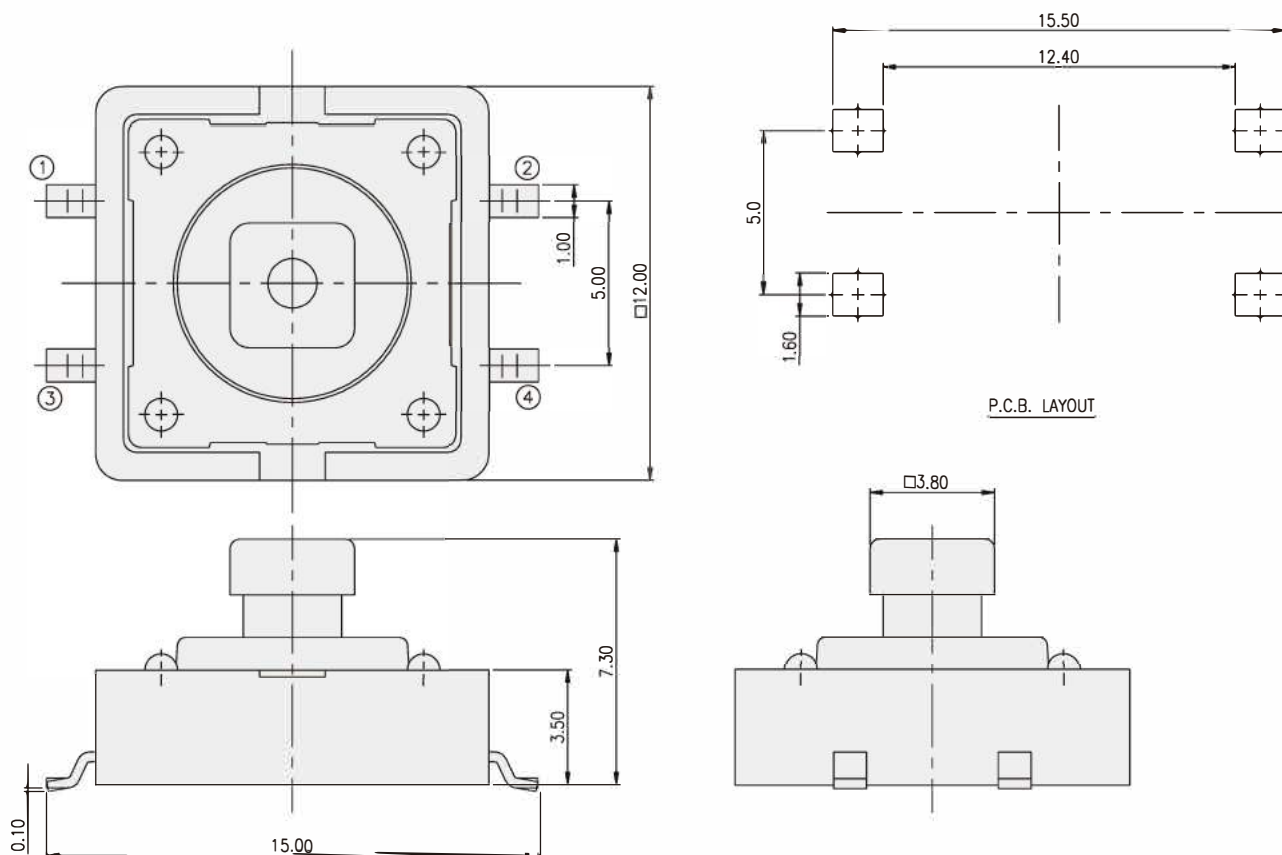
PACKAGE

<Tube>	<Bag>
DTSM-2: 40 pcs	DTSM-21: 500 pcs
<Tape & Reel>	
DTSM-21: 700 pcs	
DTSM(P)-23, 24: 500 pcs	
DTSM(P)-25: 400 pcs	

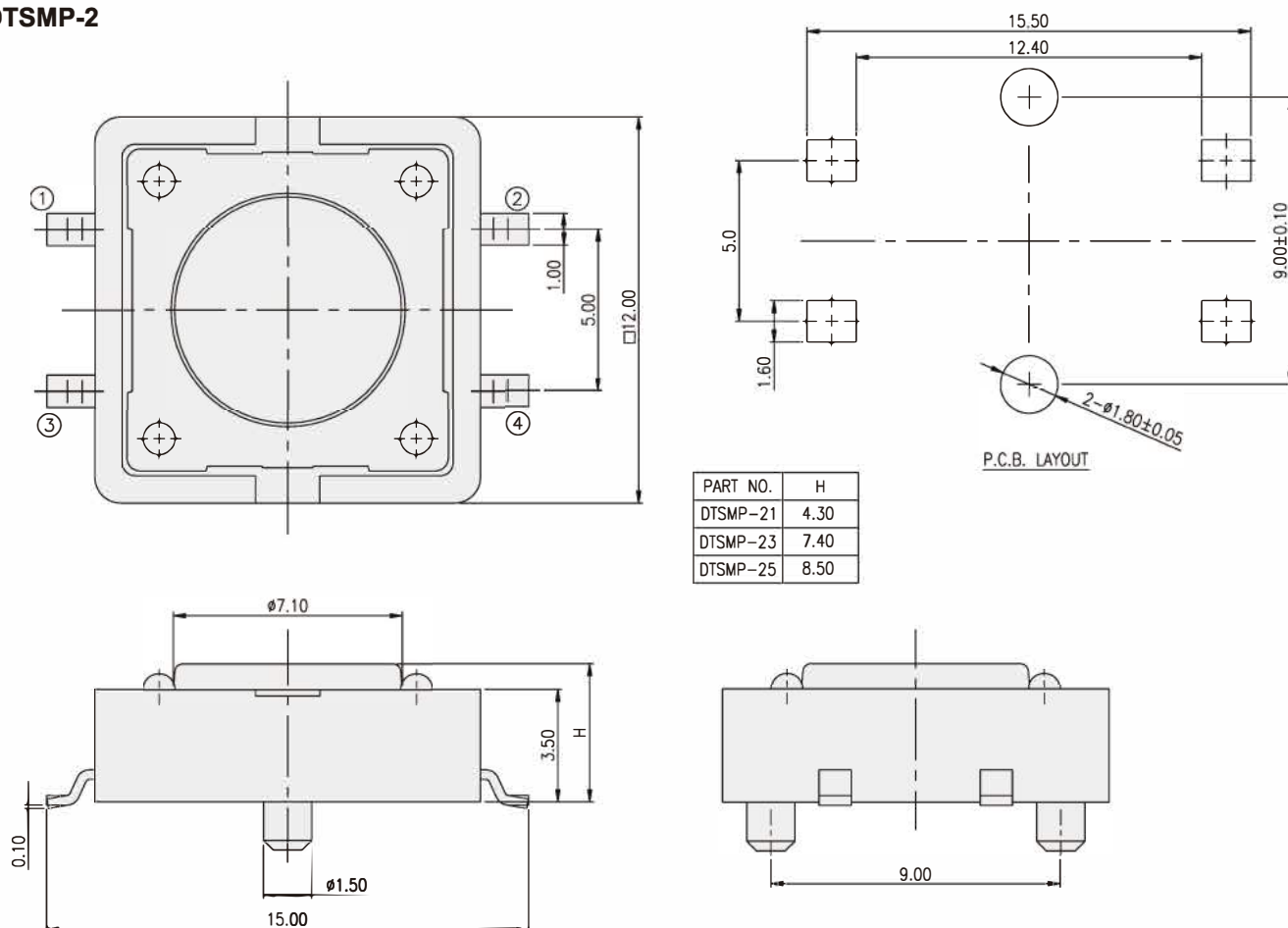
DTSM-2

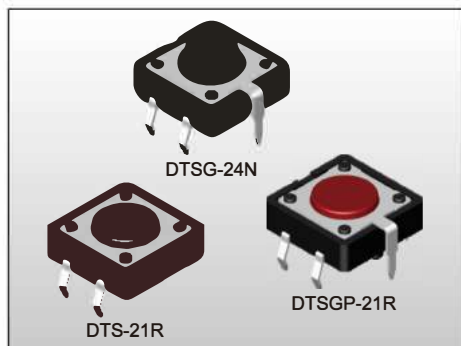


DTSM-24



DTSMP-2





FEATURES

- ※Snap in type with ground pin
- ※Guide bosses available
- ※Cap options

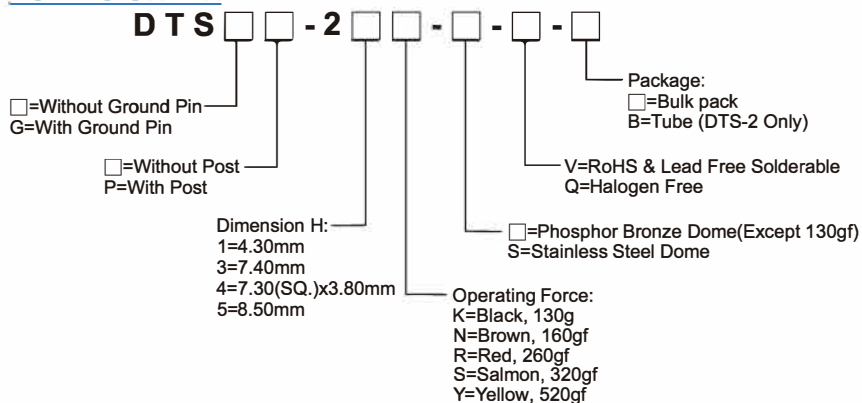
APPLICATION

- ※Audio, OA equipment
- ※Instrumentation
- ※Industrial

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	130±50gf, Black(K) 160±50gf, Brown(N) 260±50gf, Red(R) 320±80gf, Salmon(S) 520±130gf, Yellow(Y)
Travel	0.35mm
Operating Life	Phosphor Bronze Dome 100,000 cycles for 520/320/260gf 200,000 cycles for 160gf Stainless Steel Dome 300,000 cycles for 520/320gf 500,000 cycles for 260gf 1,000,000 cycles for 160gf 10,000,000 cycles for 130gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

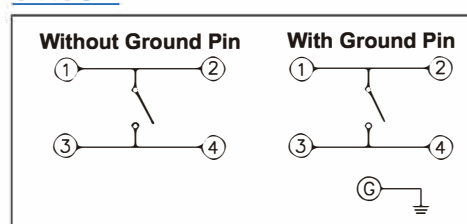
HOW TO ORDER



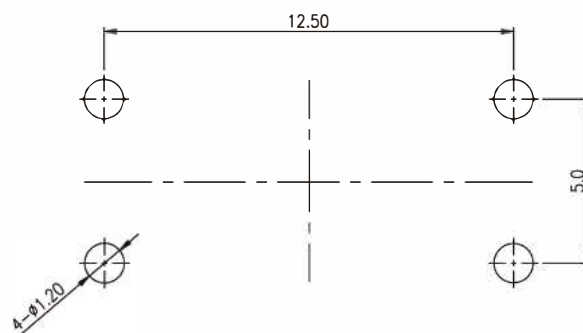
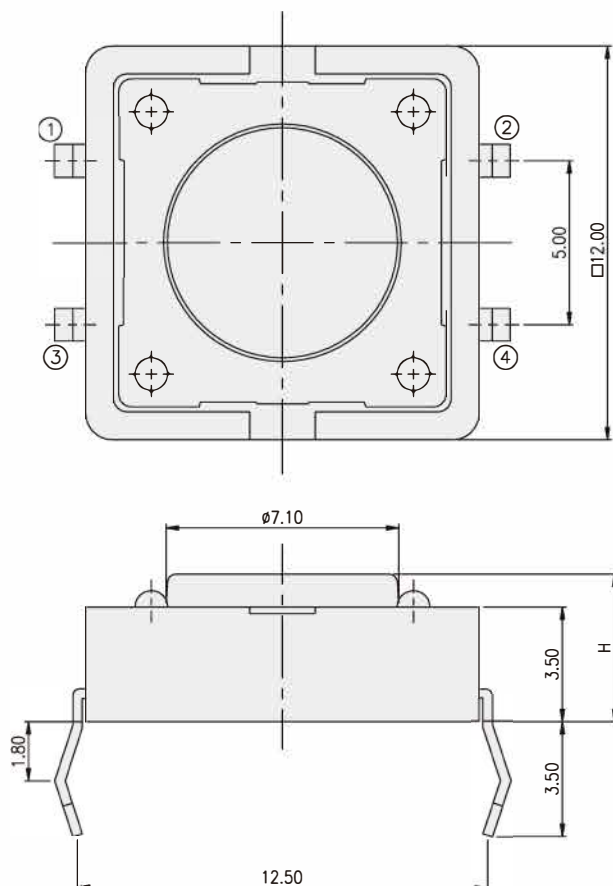
PACKAGE

<Bag>
500 pcs
<Tube>
DTS-2: 40 pcs

CIRCUIT

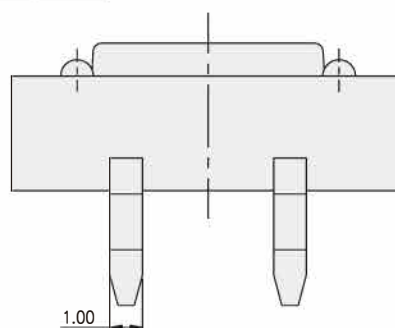


DTS-2

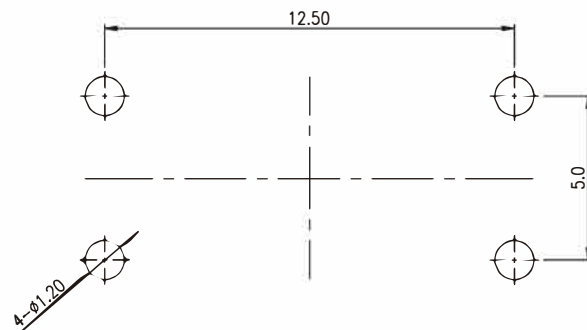
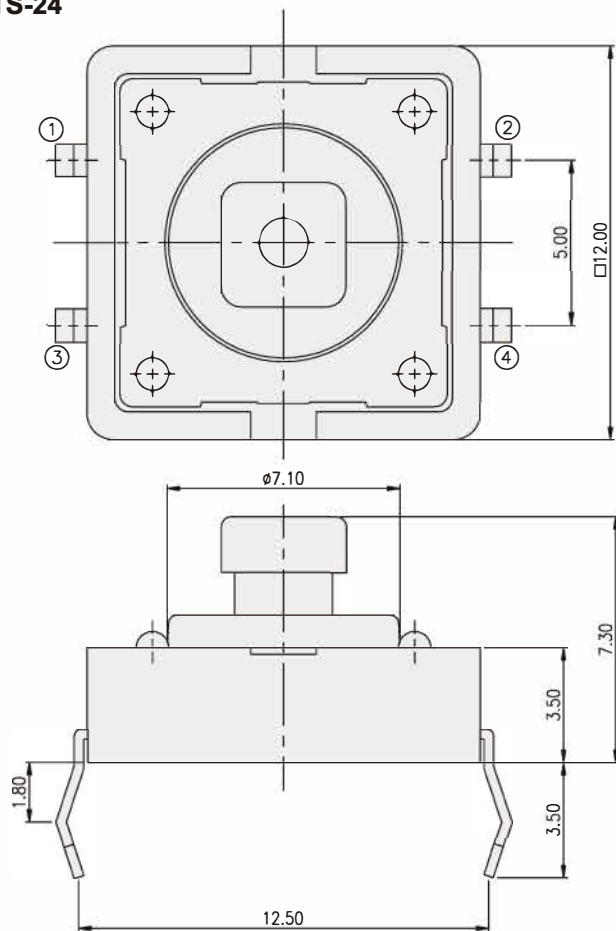


P.C.B. LAYOUT

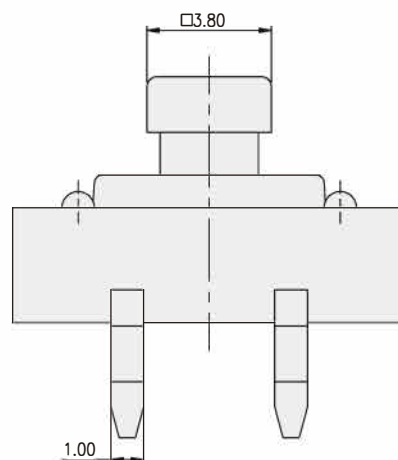
PART NO.	H
DTS-21	4.30
DTS-23	7.40
DTS-25	8.50



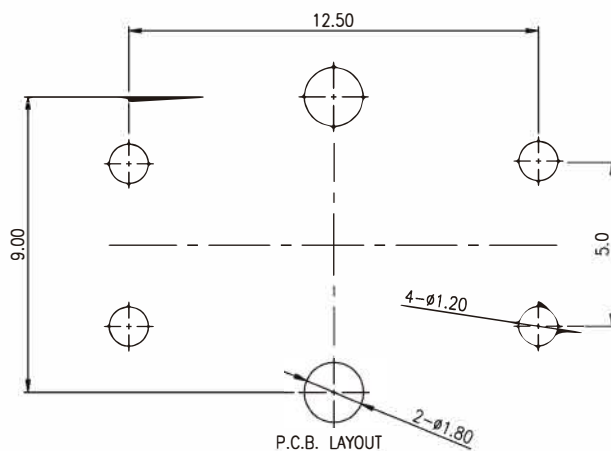
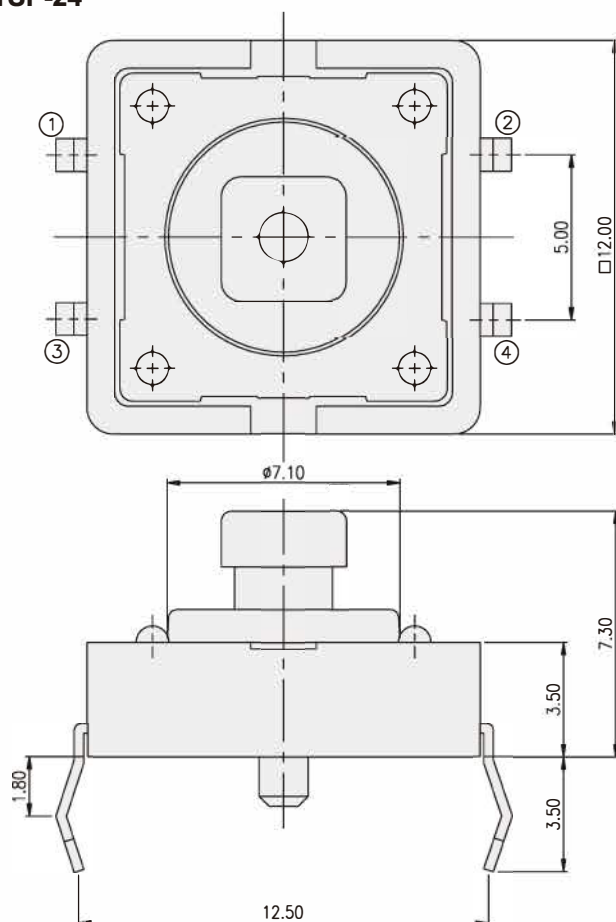
DTS-24



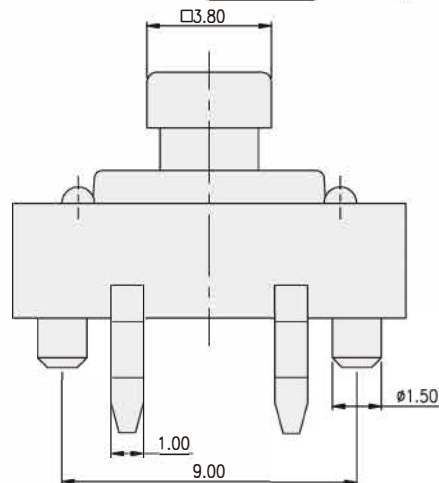
P.C.B. LAYOUT



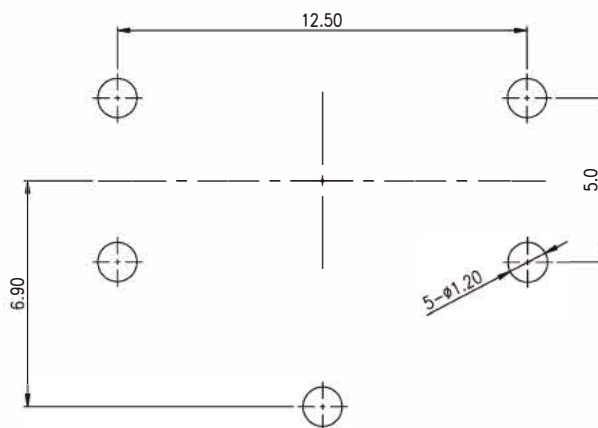
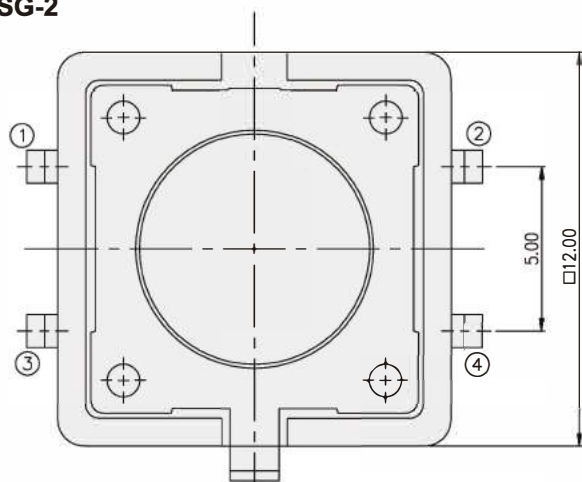
DTSP-24



P.C.B. LAYOUT

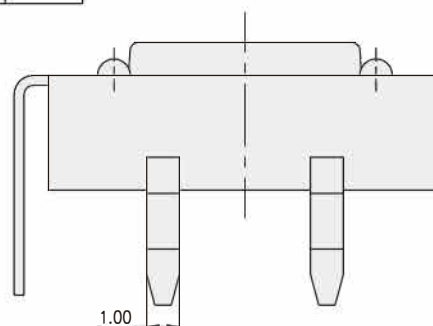
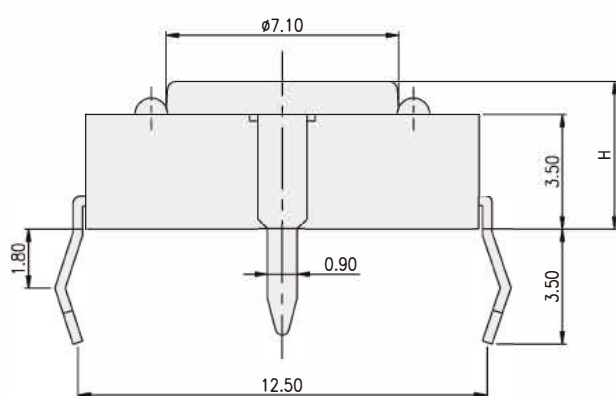


DTSG-2



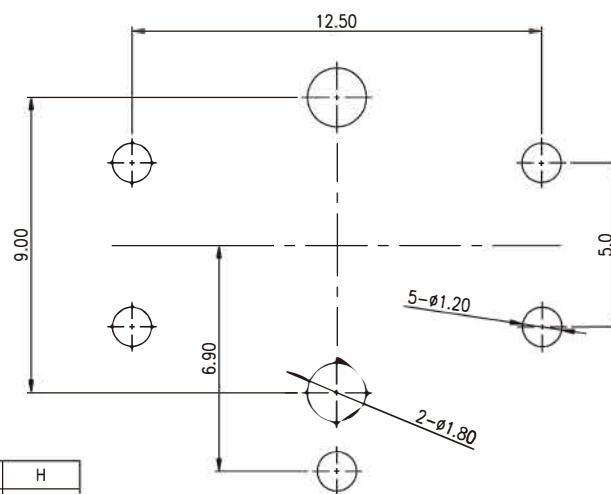
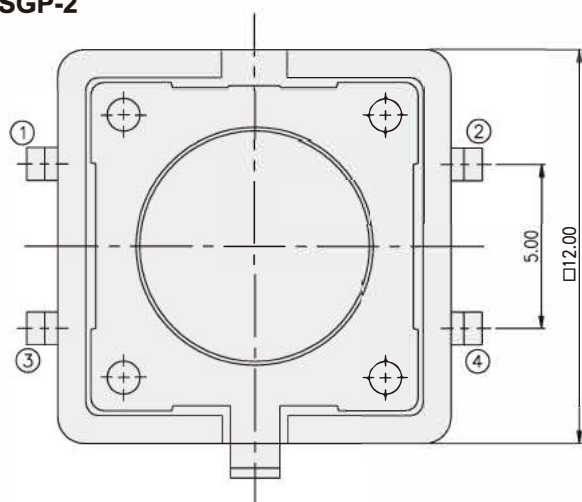
PART NO.	H
DTSG-21	4.30
DTSG-23	7.40
DTSG-25	8.50

P.C.B. LAYOUT



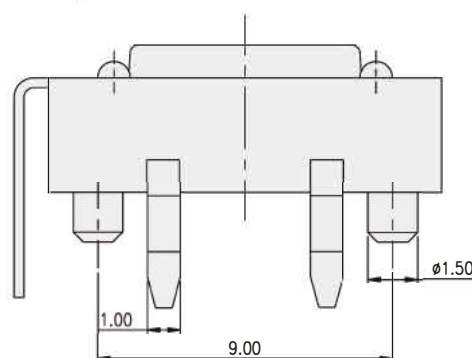
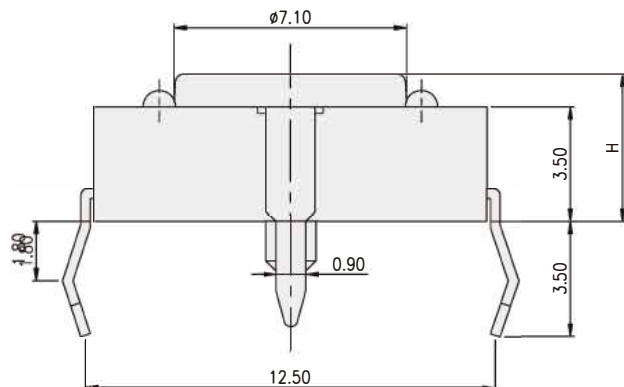
TACT SWITCH

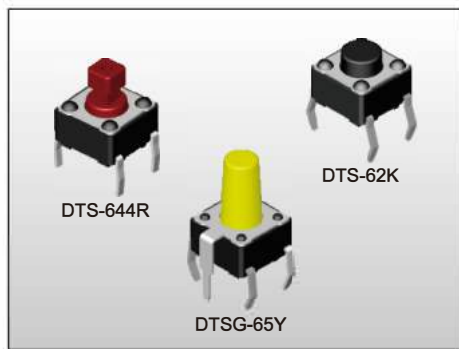
DTSGP-2



PART NO.	H
DTSGP-21	4.30
DTSGP-23	7.40
DTSGP-25	8.50

P.C.B. LAYOUT





FEATURES

- ※ Compact size 6x6mm
- ※ Sharp tactile feeling
- ※ Cap options

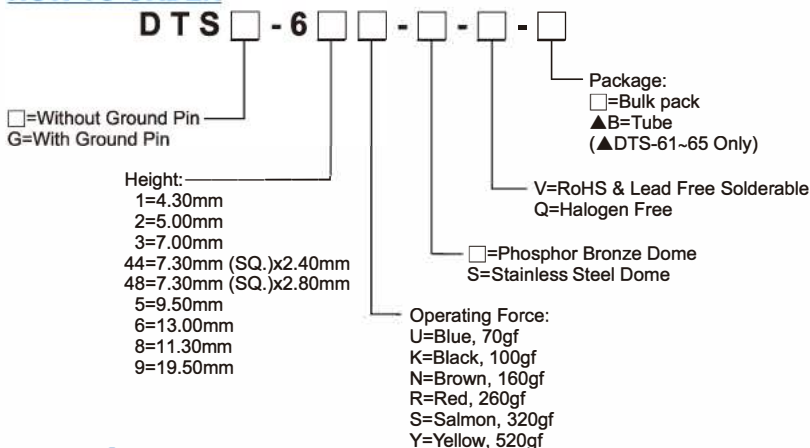
APPLICATION

- ※ Audio, OA equipment
- ※ Instrumentation
- ※ Industrial

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	70±30gf, Blue(U) 100±50gf, Black(K) 160±50gf, Brown(N) 260±50gf, Red(R) 320±80gf, Salmon(S) 520±130gf, Yellow(Y)
Travel	0.25mm
Operating Life	Phosphor Bronze Dome 50,000 cycles for 520/320gf 100,000 cycles for 260gf 200,000 cycles for 160/100/70gf Stainless Steel Dome 300,000 cycles for 520/320gf 500,000 cycles for 260gf 1,000,000 cycles for 160/100/70gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

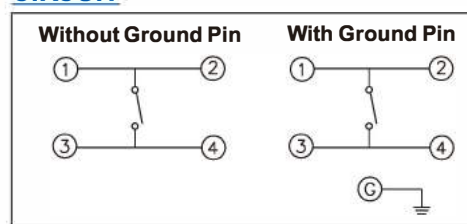
HOW TO ORDER



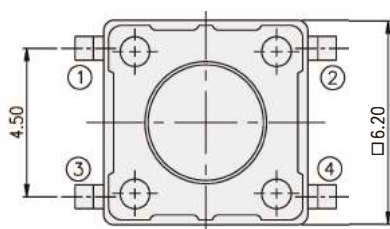
PACKAGE

<Bag>
1000 pcs
<Tube>
DTS-61~65: 75 pcs

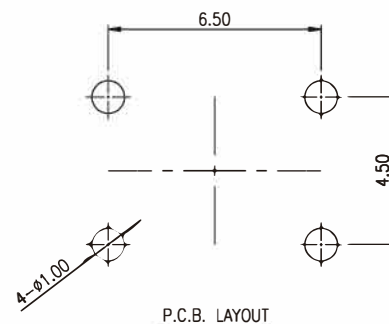
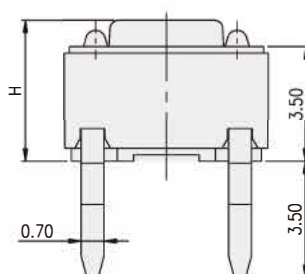
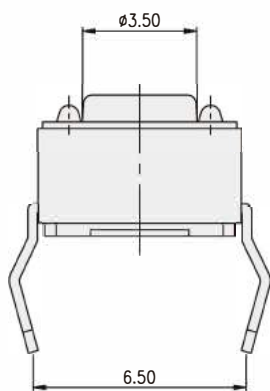
CIRCUIT



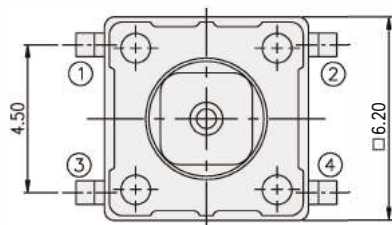
DTS-6



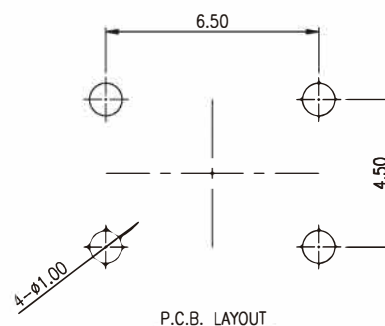
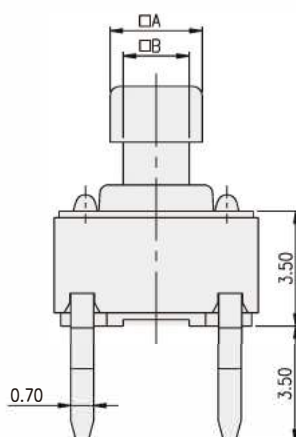
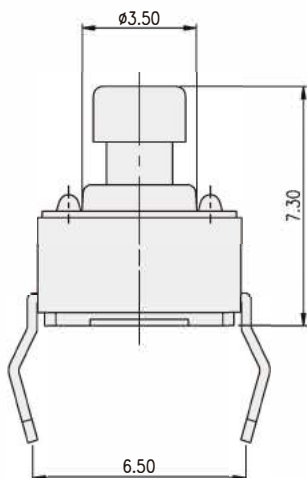
PART NO.	H
DTS-61	4.30
DTS-62	5.00
DTS-63	7.00
DTS-65	9.50
DTS-66	13.00
DTS-68	11.30
DTS-69	19.50



DTS-644(8)

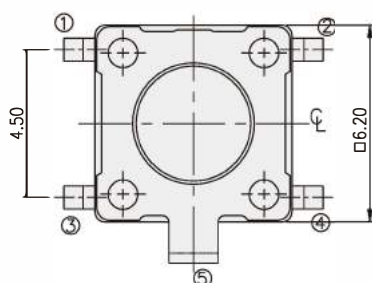


PART NO.	□A	□B
DTS-644	2.40	1.60
DTS-648	2.80	2.00

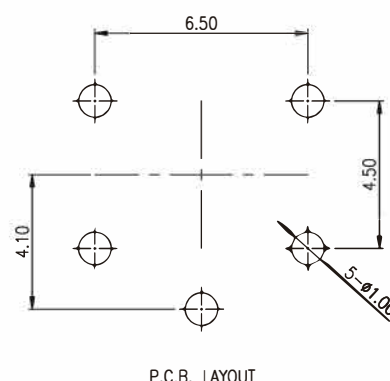
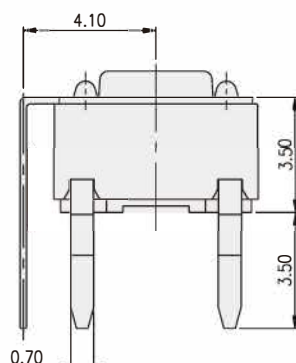
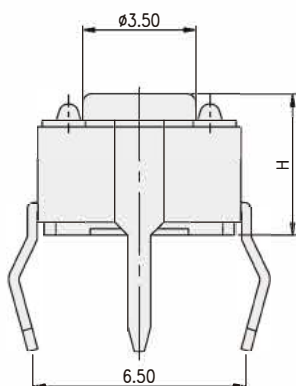


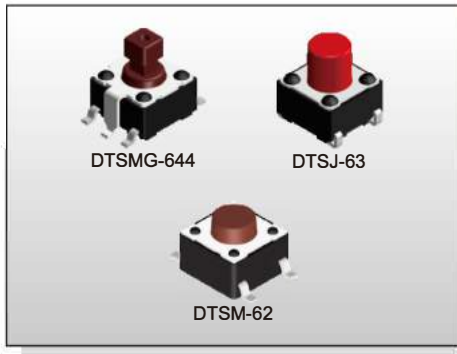
TACT SWITCH

DTSG-6



PART NO.	H
DTSG-61	4.30
DTSG-62	5.00
DTSG-63	7.00
DTSG-65	9.50
DTSG-66	13.00
DTSG-68	11.30
DTSG-69	19.50





FEATURES

- ※6x6mm, surface mounting type
- ※Optional ground pin
- ※Reflow solderable

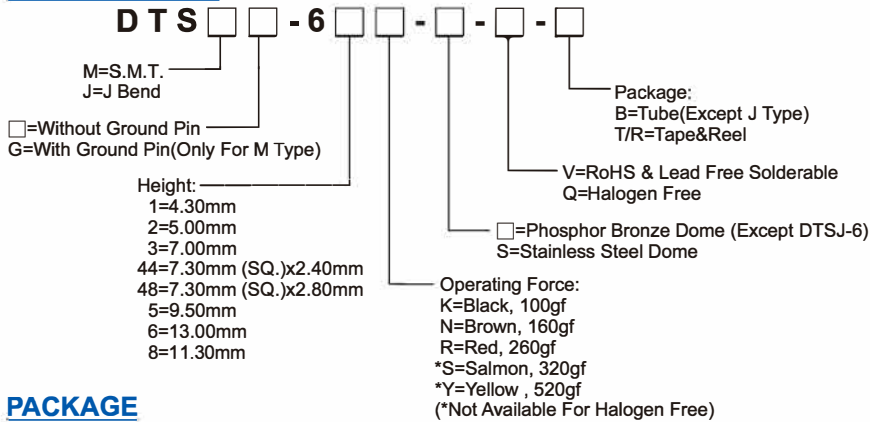
APPLICATION

- ※Audio, OA equipment
- ※Instrumentation, Communication
- ※White goods

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	100±50gf, Black(K) 160±50gf, Brown(N) 260±50gf, Red(R) 320±80gf, Salmon(S) 520±130gf, Yellow(Y)
Travel	0.25mm
Operating Life	Phosphor Bronze Dome 50,000 cycles for 520/320gf 100,000 cycles for 260gf 200,000 cycles for 160/100gf Stainless Steel Dome 300,000 cycles for 520/320gf 500,000 cycles for 260gf 1,000,000 cycles for 160/100gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER



PACKAGE

<Tube>

77 pcs

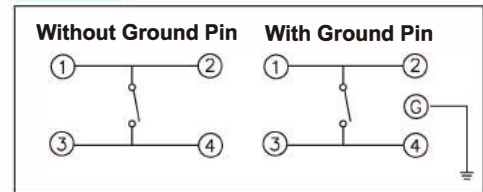
<Tape & Reel>

DTSM(G)(J)-61 / DTSMG-62:1000 pcs

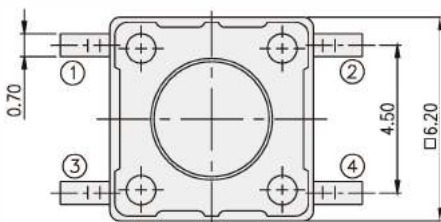
DTS(M)(J)-62:900 pcs DTSM(G)(T)-63, 64:700 pcs DTSJ-65:400 pcs

DTSM(G)-65:380 pcs DTSM-68:300 pcs DTS(M)(J)-66:200 pcs

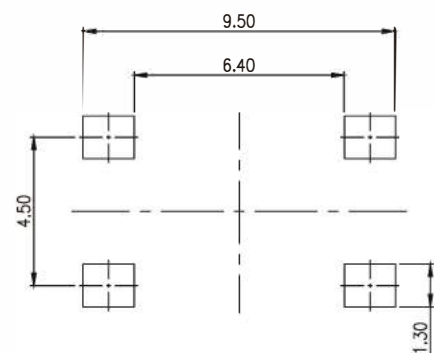
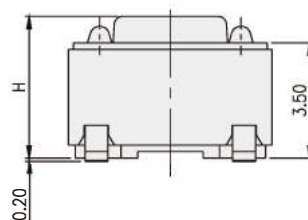
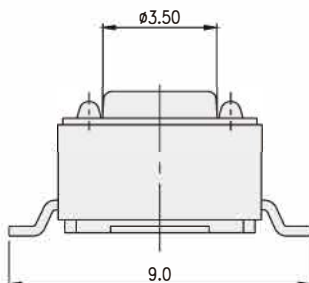
CIRCUIT



DTSM-6

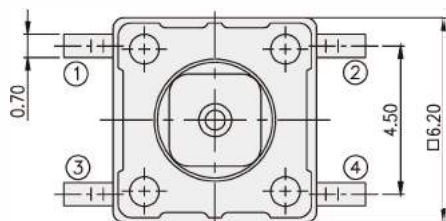


PART NO.	H
DTSM-61	4.30
DTSM-62	5.00
DTSJ-63	7.00
DTSM-65	9.50
DTSM-66	13.00
DTSM-68	11.30

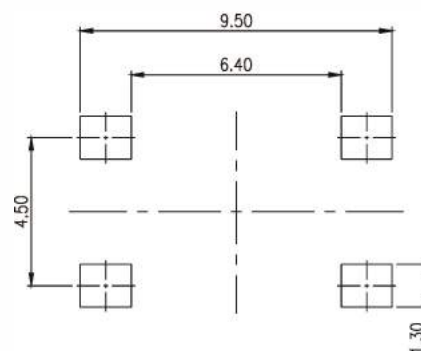
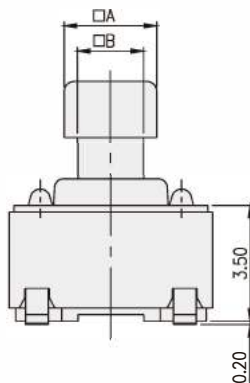
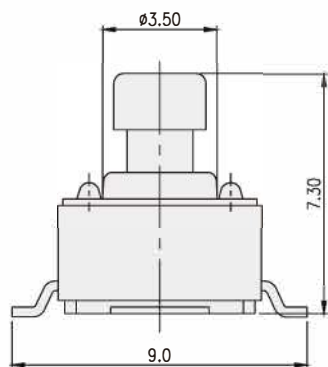


P.C.B. LAYOUT

DTSM-644(8)



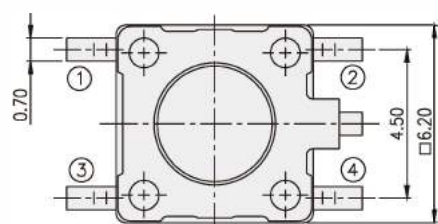
PART NO.	□A	□B
DTSM-644	2.40	1.60
DTSM-648	2.80	2.00



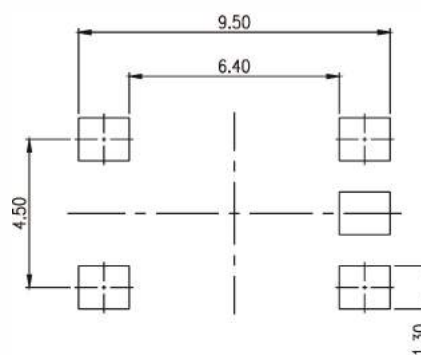
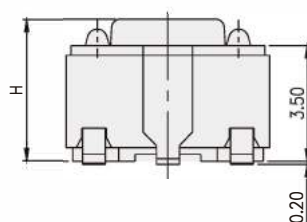
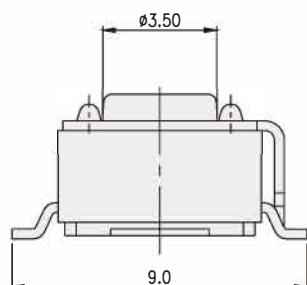
P.C.B. LAYOUT

TACT SWITCH

DTSMG-6

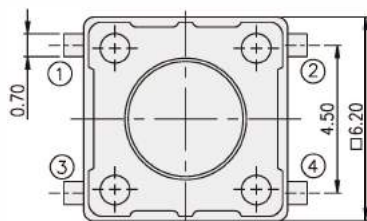


PART NO.	H
DTSMG-61	4.30
DTSMG-62	5.00
DTSMG-63	7.00
DTSMG-65	9.50
DTSMG-66	13.00
DTSMG-68	11.30

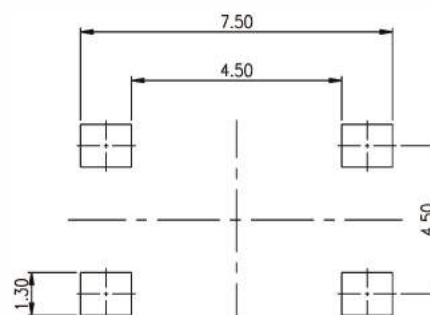
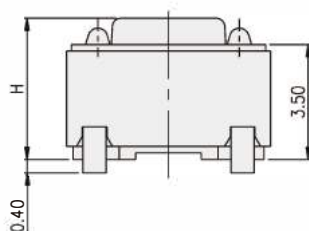
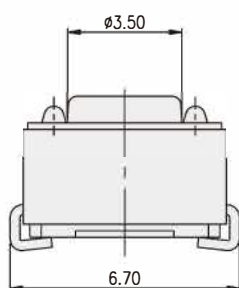


P.C.B. LAYOUT

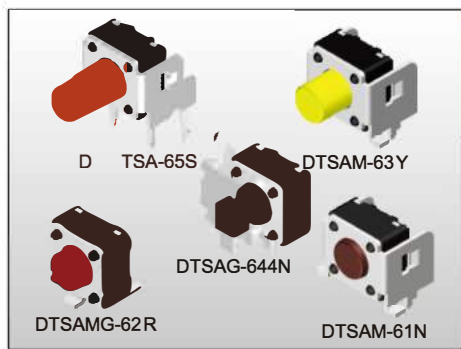
DTSJ-6



PART NO.	H
DTSJ-61	4.30
DTSJ-62	5.00
DTSJ-63	7.00
DTSJ-65	9.50
DTSJ-66	13.00
DTSJ-68	11.30



P.C.B. LAYOUT



FEATURES

- ※Variety of actuator lengths
- ※Optional ground pin
- ※Cap options

APPLICATION

- ※Audio, OA equipment
- ※Instrumentation
- ※Set-top box

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	100±50gf, Black(K) 160±50gf, Brown(N) 260±50gf, Red(R) 320±80gf, Salmon(S) 520±130gf, Yellow(Y)
Travel	0.25mm
Operating Life	Phosphor Bronze Dome 50,000 cycles for 520/320gf 100,000 cycles for 260gf 200,000 cycles for 160/100gf Stainless Steel Dome 300,000 cycles for 520/320gf 500,000 cycles for 260gf 1,000,000 cycles for 160/100gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER

D T S ☐ - 6 ☐ - ☐ - ☐ - ☐ - ☐

A=Right Angle
AM=Right Angle & S.M.T.
AG=Right Angle & Ground Pin
AMG=S.M.T. & Ground Pin
(Halogen Free Only)

Dimension H:
*Please Refer To Drawing Below

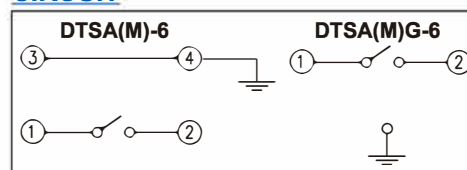
☐=Bulk Pack
T/R=Tape & Reel
(Except DTSA, DTSAG)

V=RoHS & Lead Free Solderable
(Except DTSAM, DTSAMG)
Q=Halogen Free

☐=Phosphor Bronze Dome
S=Stainless Steel Dome

Operating Force:
K=Black, 100gf
N=Brown, 160gf
R=Red, 260gf
*S=Salmon, 320gf
*Y=Yellow, 520gf
(*Not Available For Halogen Free)

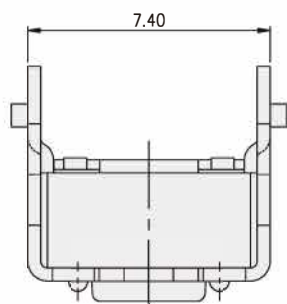
CIRCUIT



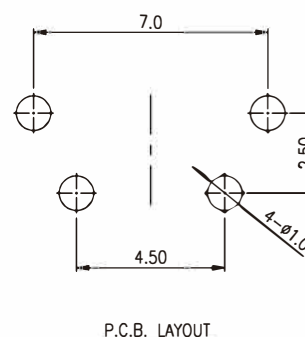
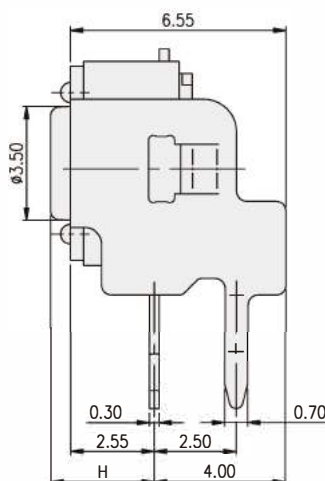
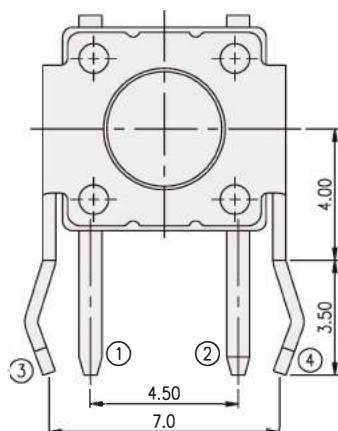
PACKAGE

<Bag>
DTSA(G)-6: 500 pcs
<Tape & Reel>
DTSAM-6: 500 pcs
DTSAMG-61, 62: 500 pcs
DTSAMG-63, 64, 65: 380 pcs

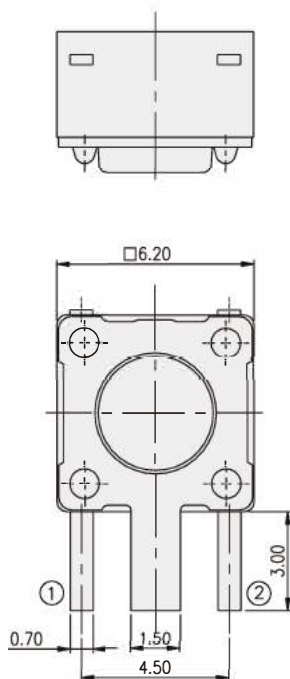
DTSA-6



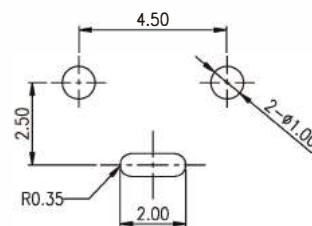
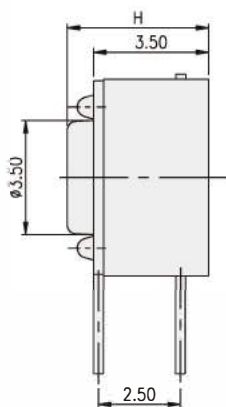
PART NO.	H
DTSA-61	3.15
DTSA-62	3.85
DTSA-63	5.85
DTSA-644	6.15(SQ.2.40)
DTSA-648	6.15(SQ.2.80)
DTSA-65	8.35
DTSA-66	11.85



DTSAG-6



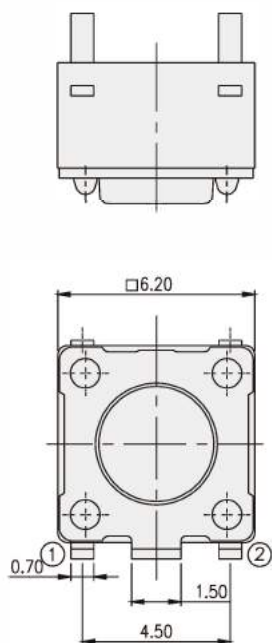
PART NO.	H
DTSAG-61	4.30
DTSAG-62	5.00
DTSAG-63	7.00
DTSAG-644	7.30(SQ.2.40)
DTSAG-648	7.30(SQ.2.80)
DTSAG-65	9.50
DTSAG-66	13.00



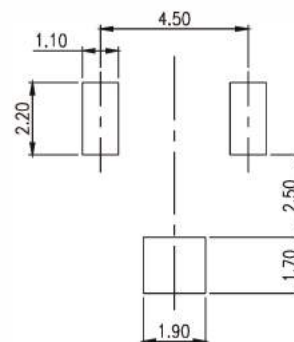
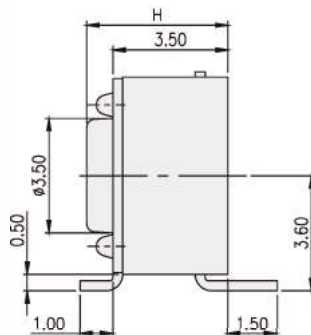
P.C.B. LAYOUT

TACT SWITCH

DTSAMG-6

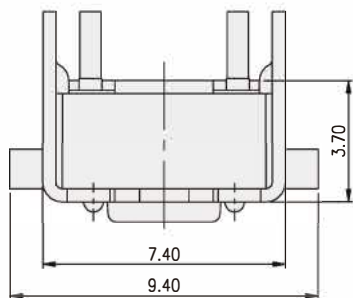


PART NO.	H
DTSAMG-61	4.30
DTSAMG-62	5.00
DTSAMG-63	7.00
DTSAMG-644	7.30(SQ.2.40)
DTSAMG-648	7.30(SQ.2.80)
DTSAMG-65	9.50
DTSAMG-66	13.00

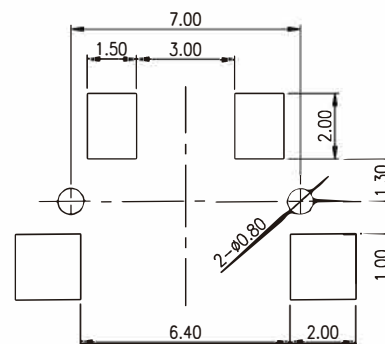
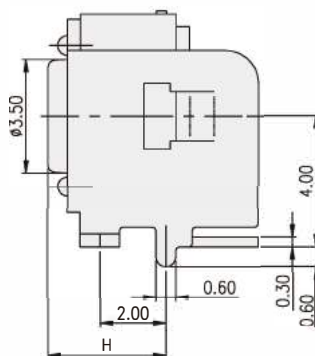
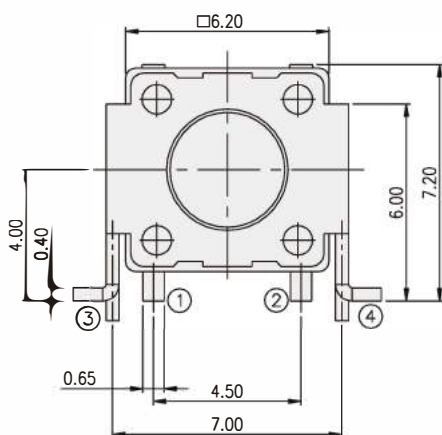


P.C.B. LAYOUT

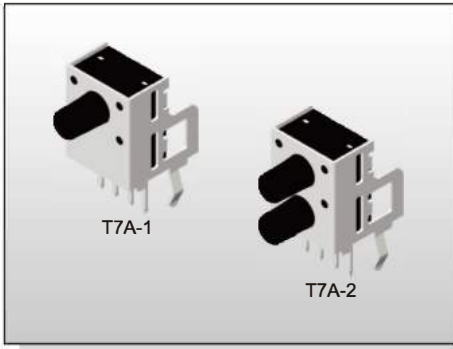
DTSAM-6



PART NO.	H
DTSAM-61	3.60
DTSAM-62	4.30
DTSAM-63	6.30
DTSAM-644	7.30(SQ.2.40)
DTSAM-648	7.30(SQ.2.80)
DTSAM-65	8.80



P.C.B. LAYOUT



FEATURES

- ※Double switch
- ※Two Circuit

APPLICATION

- ※Audio, OA equipment
- ※Instrumentation
- ※Set-top box

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	180±50gf
Travel	0.20mm
Operating Life	100,000 cycles
Operating Temp.	-20°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER

T 7 A - 1 4 K Q P

1=Single Stem
2=Double Stem

Stem High:
3.80mm

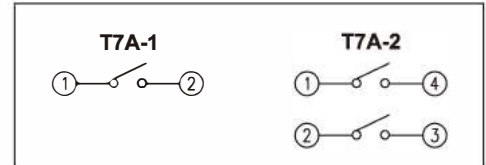
Package:
Bulk Pack

Halogen Free

Stem Color:
Black

Operating Force:
180gf

CIRCUIT

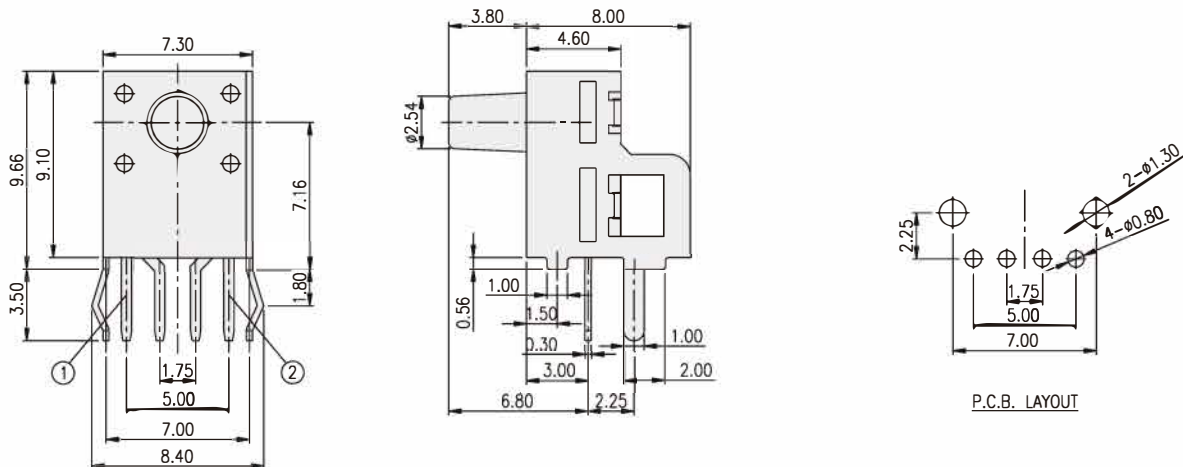


PACKAGE

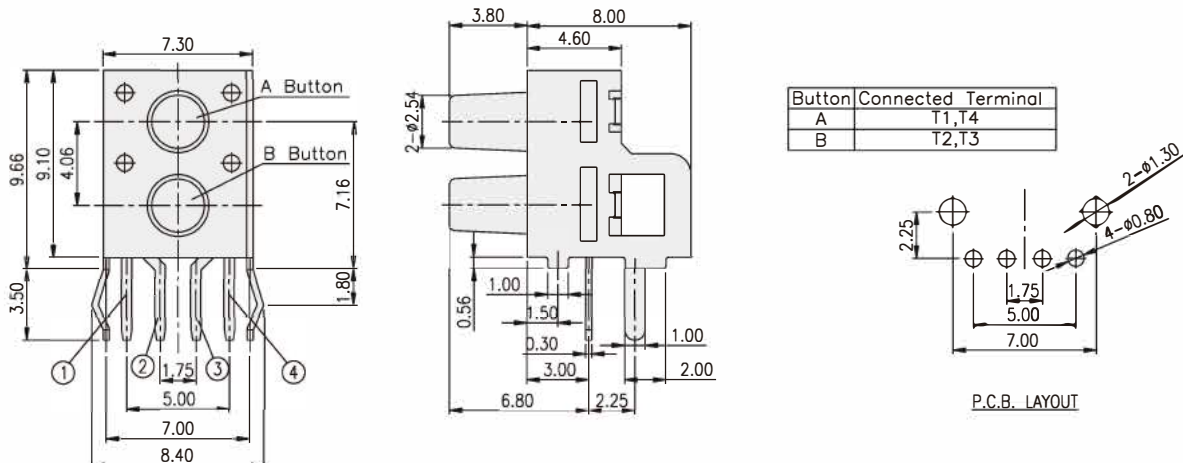
<Bag>
400 pcs

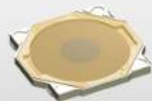
TACT SWITCH

T7A-1



T7A-2





T7B

FEATURES

- ※ Long life cycles of 5 million
- ※ Low profile with 0.60mm

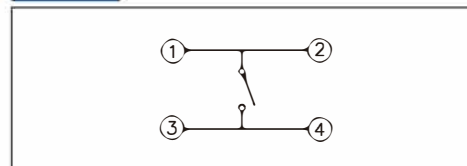
APPLICATION

- ※ Automotive
- ※ Industrial equipment
- ※ Portable electronic device

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	500mΩ max.
Insulation Resistance	10MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	100±50gf, 160±50gf, 200±50gf
Travel	0.25mm
Operating Life	5,000,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +90°C

CIRCUIT



PACKAGE

<Tape & Reel>
5200 pcs.

HOW TO ORDER

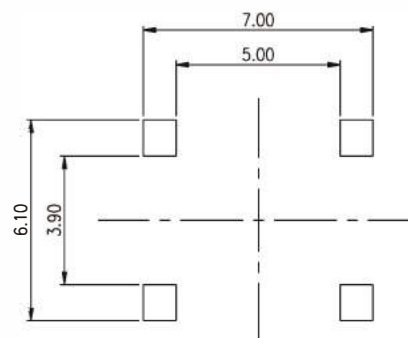
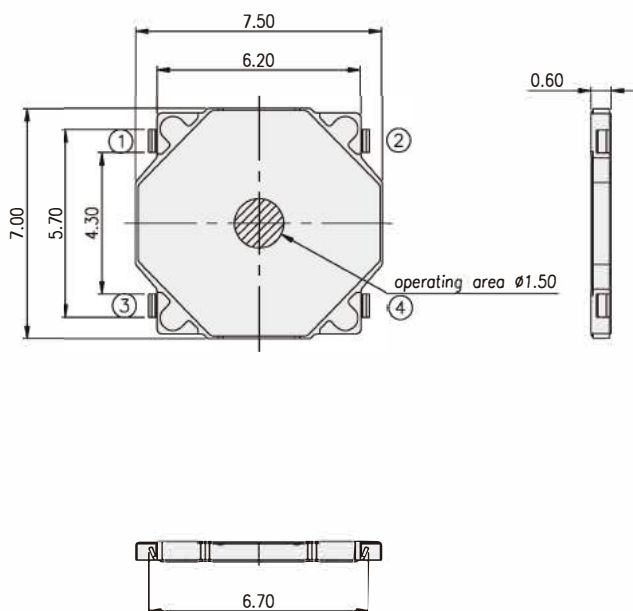
T 7 B □ Q R

Operating Force:
1=100gf
2=160gf
3=200gf

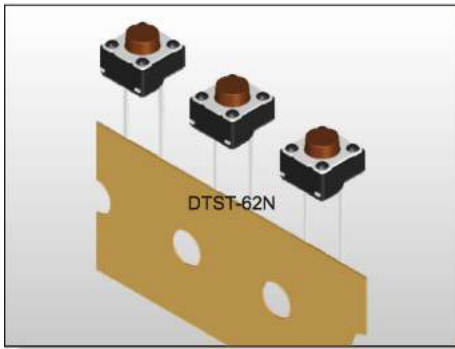
Package:
Reel
Halogen Free

TACT SWITCH

T7B



P.C.B. LAYOUT



FEATURES

- ※Radial taping type
- ※Variety of actuator lengths
- ※Allow automatic insertion onto PCB.

APPLICATION

- ※White goods , OA equipment
- ※Audio, DVD player, TV
- ※Instrumentation

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	100±50gf, Black(K) 160±50gf, Brown(N) 260±50gf, Red(R) 320±80gf, Salmon(S) 520±130gf, Yellow(Y)
Travel	0.25mm
Operating Life	Phosphor Bronze Dome 50,000 cycles for 520/320gf 100,000 cycles for 260gf 200,000 cycles for 160/100gf Stainless Steel Dome 300,000 cycles for 520/320gf 500,000 cycles for 260gf 1,000,000 cycles for 160/100gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER

DTST-6 □ □ - □ - □

Radial Taping Type

Height:

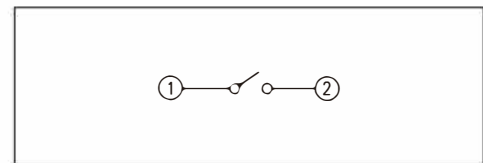
- 1=4.30mm
- 2=5.00mm
- 3=7.00mm
- 44=7.30mm (SQ.)x2.40mm
- 48=7.30mm (SQ.)x2.80mm
- 5=9.50mm
- 6=13.00mm

V=RoHS & Lead Free Solderable
Q=Halogen Free

□=Phosphor Bronze Dome
S=Stainless Steel Dome

Operating Force:
K=Black, 100gf
N=Brown, 160gf
R=Red, 260gf
S=Salmon, 320gf
Y=Yellow, 520gf

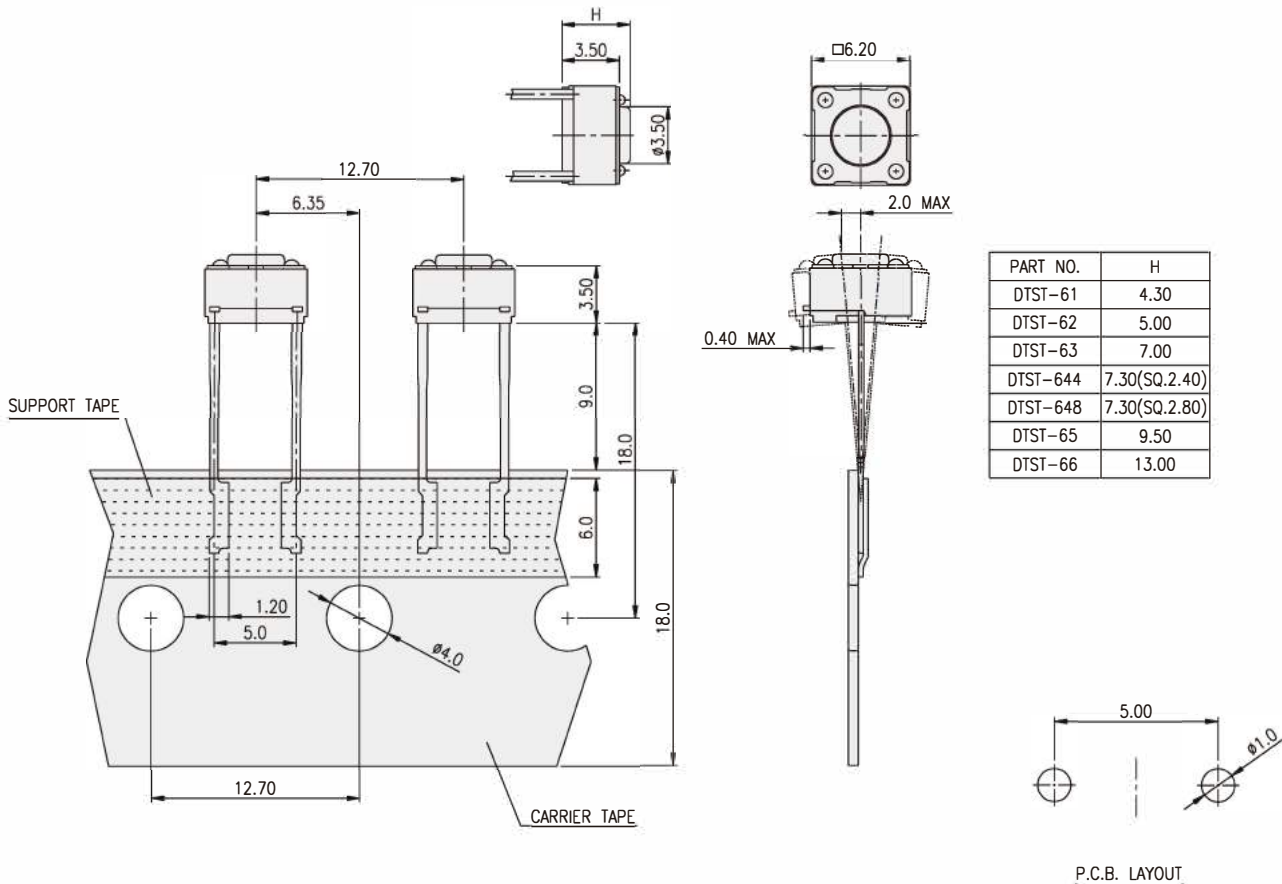
CIRCUIT



PACKAGE

<Box>
900 pcs

DTST-6





HOW TO ORDER

KTSC - [] [] []

Prod. Size: <Tactile Switch>
2=12X12mm (Can be applied on DTS□-24)
6=6x6mm (Can be applied on DTS□-644)

Cap Type:
1=Square
2=Round

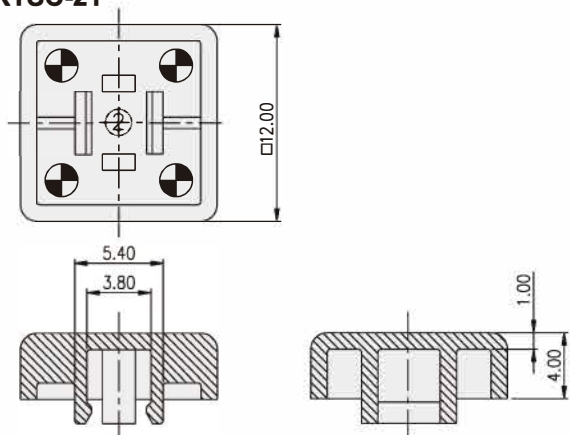
Cap color:
Y=Yellow
B=Blue
R=Red
I=Ivory
K=Black
G=Green
S=Salmon
Ge=Gray

PACKAGE

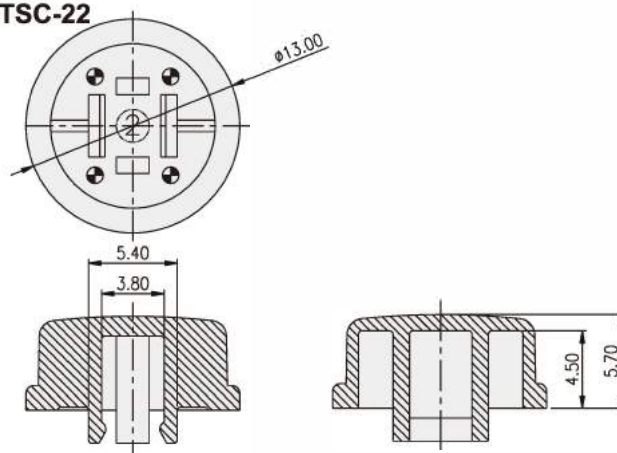
<Bag>

KTSC-2: 500 pcs
KTSC-6:1500 pcs

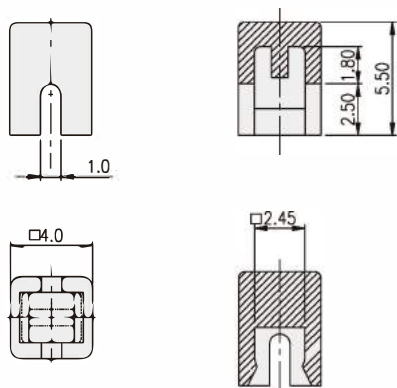
KTSC-21



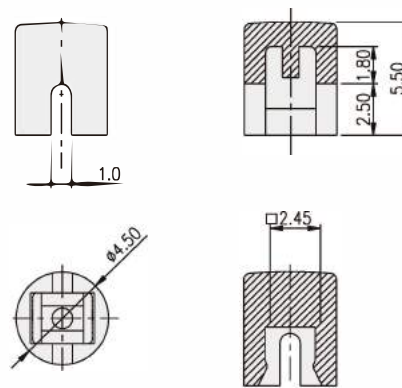
KTSC-22



KTSC-61



KTSC-62





FEATURES

- ※Sealed
- ※Through hole & SMT type
- ※1 million operating life cycle

APPLICATION

- ※Audio, OA equipment
- ※Instrumentation
- ※Industrial

SPECIFICATION

Contact Rating	50mA, 24V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 250V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf, Brown(N) 260±50gf, Red(R) 320±80gf, White(W) 520±130gf, Yellow(Y)
Travel	0.4mm
Operating Life	300,000 cycles for 520/320gf 1,000,000 cycles for 260/160gf
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER

D T S () W - 2 () - Q - ()

M=S.M.T.
H=Through Hole

Washable

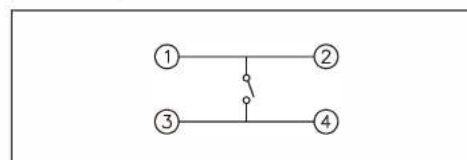
Package:
B=Tube
T/R=Tape & Reel (Only for S.M.T.)

Halogen Free

Operating Force:
N=Brown, 160gf
R=Red, 260gf
W=White, 320gf
Y=Yellow, 520gf

Height:
1=4.30mm
4=7.30mm

CIRCUIT

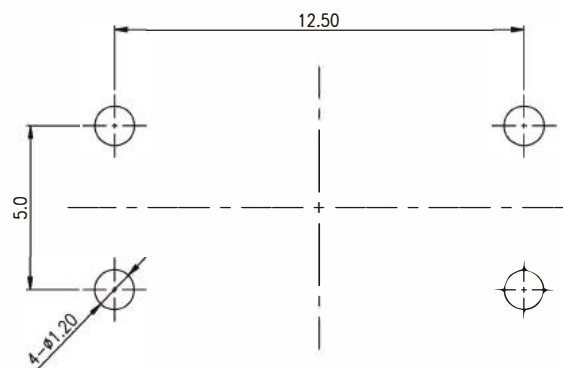
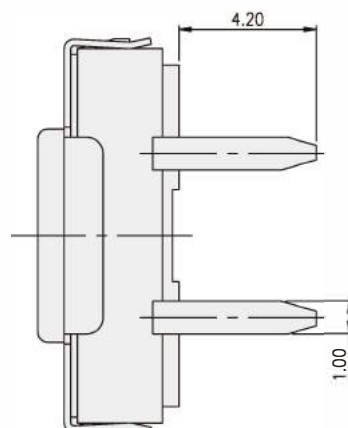
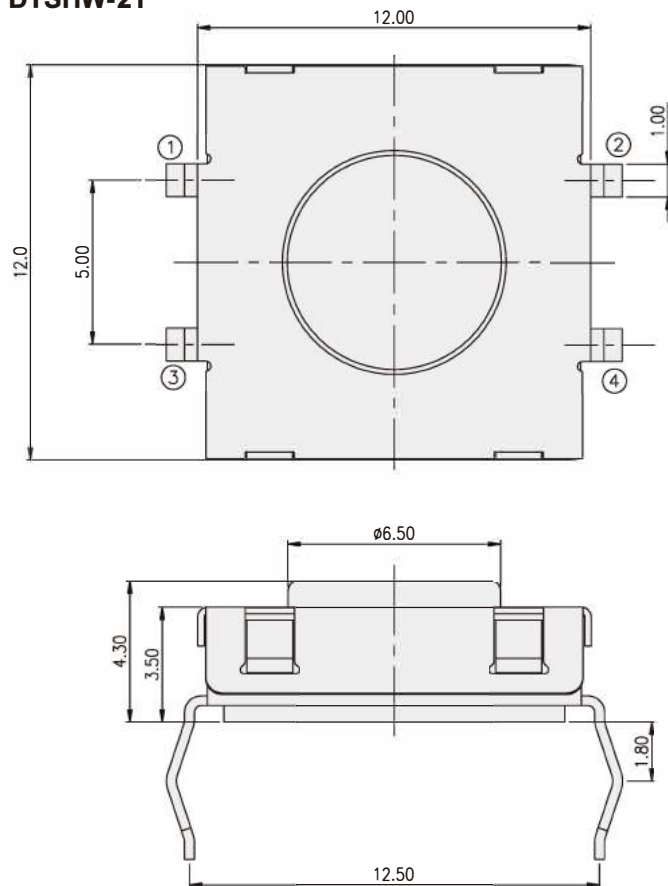


PACKAGE

<Tube>
39 pcs

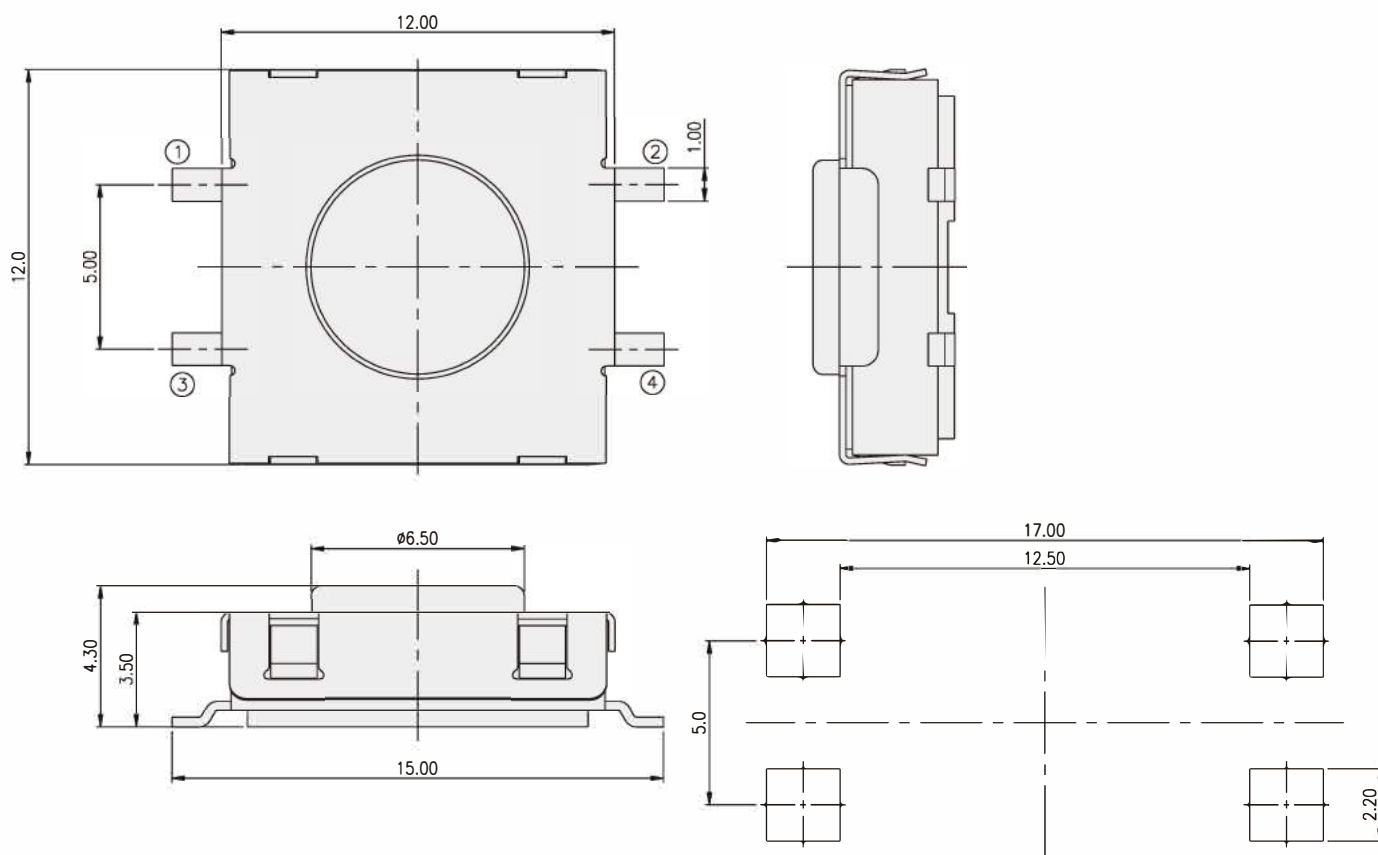
<Tape & Reel>
DTSMW-21: 700 pcs
DTSMW-24: 500 pcs

DTSHW-21



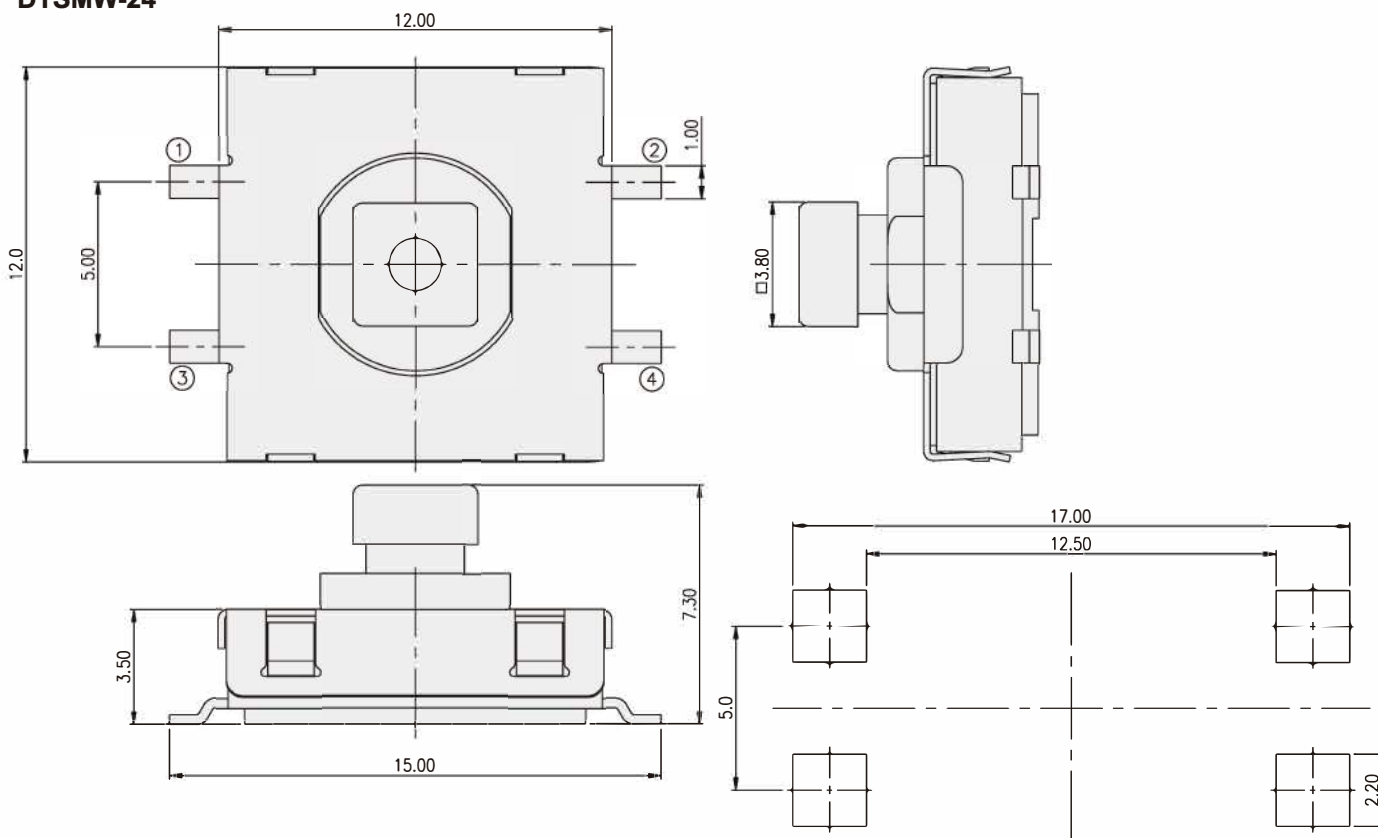
P.C.B. LAYOUT

DTSMW-21



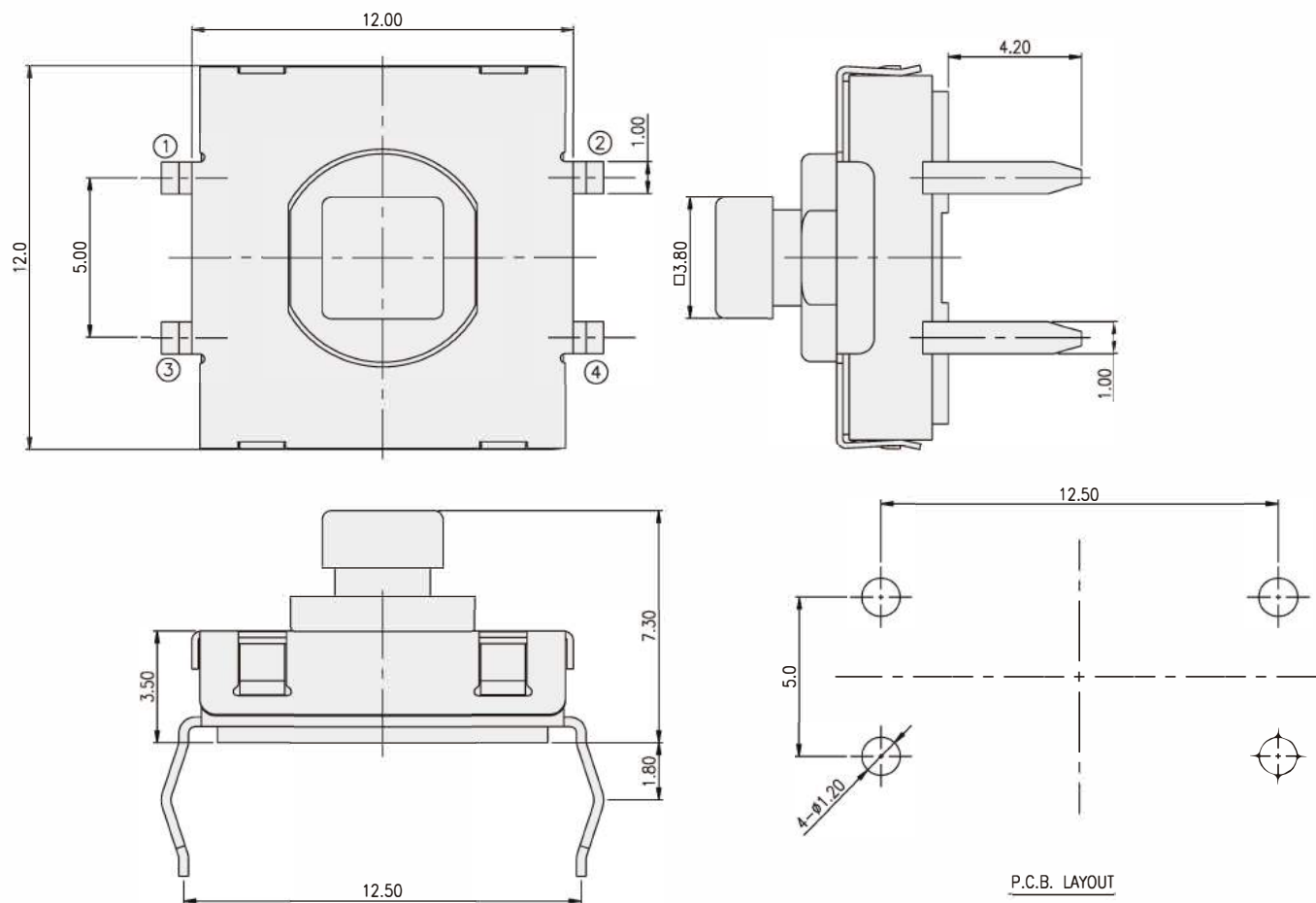
P.C.B. LAYOUT

DTSMW-24



P.C.B. LAYOUT

DTSHW-24





FEATURES

- ※ J or M terminations
- ※ Long Travel type
- ※ Long operating cycles
- ※ IP67

APPLICATION

- ※ Automotive
- ※ Industrial electronics
- ※ Network infrastructure and IT
- ※ Elevator

SPECIFICATION

Contact Rating	20mV DC~32V DC/1.0 mA~50 mA
Contact Resistance	100mΩ max.
Insulation Resistance	10MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf, Brown(N) 200±50gf, Rad(R) 350±100gf, Salmon(S)
Travel	0.3mm (160gf) 0.35mm (200gf) 0.5mm (350gf)
Operating Life	300,000 cycles (350gf) 500,000 cycles (200gf) 5,000,000 cycles (160gf)
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-55°C(10 days) ~ +85°C(4 days)

HOW TO ORDER

T 6 W ☐ ☐ ☐ ☐ **Q R**

M=S.M.T
J=J Bend

Height:
1=3.50mm
2=5.20mm

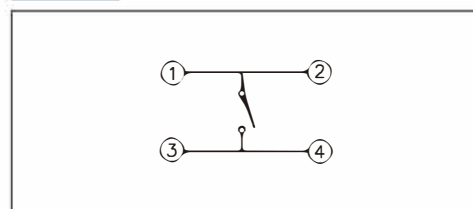
Package:
Tape & Reel

Halogen Free

Plating:
G=Silver Plating

Operating Force:
N=Brown, 160gf
R=Rad, 200gf
S=Salmon, 350gf

CIRCUIT



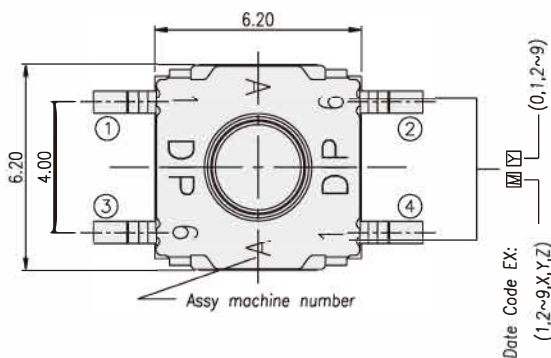
PACKAGE

<Tape & Reel>

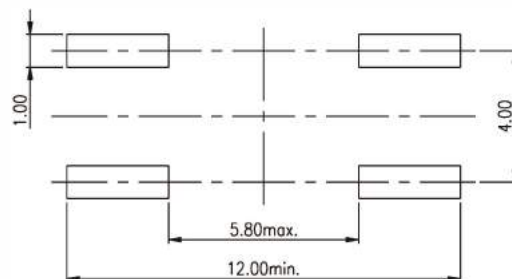
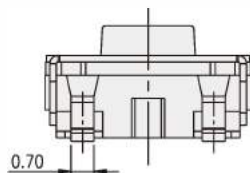
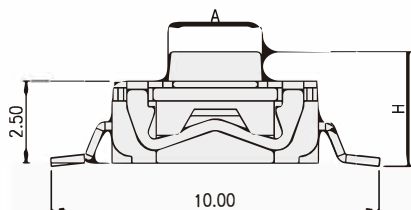
T6W ☐ 1: 2000 pcs

T6W ☐ 2: 1000 pcs

T6WM

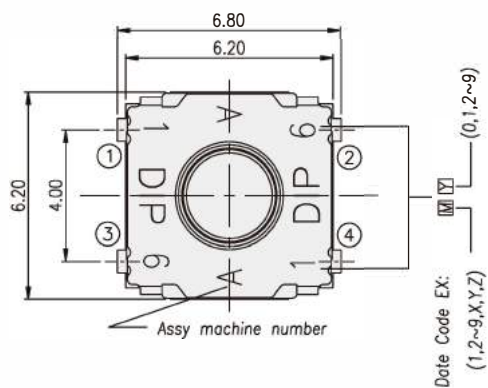


PART NO.	A	H
T6WM1	ø2.90	3.50
T6WM2	ø2.70	5.20

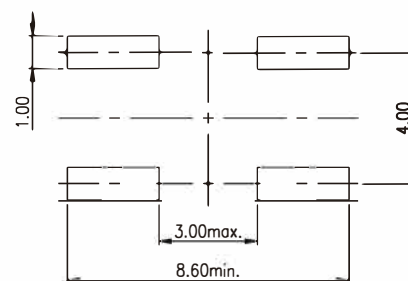
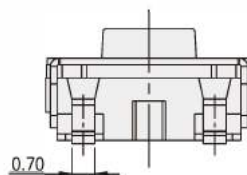
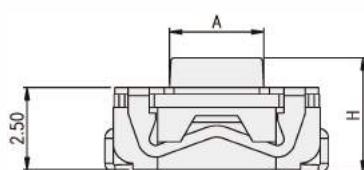


P.C.B. LAYOUT

T6WJ



PART NO.	A	H
T6WJ1	ø2.90	3.50
T6WJ2	ø2.70	5.20



P.C.B. LAYOUT



FEATURES

- ※Pin-in-paste soldering
- ※SMD side actuator
- ※Sealed IP67
- ※Sharp click feeling

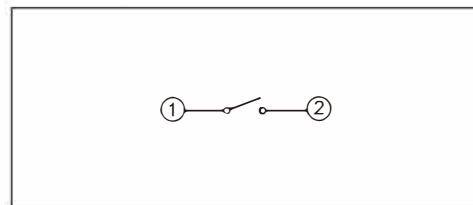
APPLICATION

- ※Automotive
- ※Industrial electronics
- ※Network infrastructure and IT
- ※Elevator

SPECIFICATION

Contact Rating	20mV DC~32V DC/1.0 mA~50 mA
Contact Resistance	100mΩ max.
Insulation Resistance	10MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	350±100gf
Travel	0.5mm
Operating Life	300,000 cycles (350gf)
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-55°C(10 days) ~ +85°C(4 days)

CIRCUIT



PACKAGE

<Tape & Reel>
550 pcs

HOW TO ORDER

T 6 W A 1 ☐ ☐ Q R

Height: 4.00mm

Package: Tape & Reel

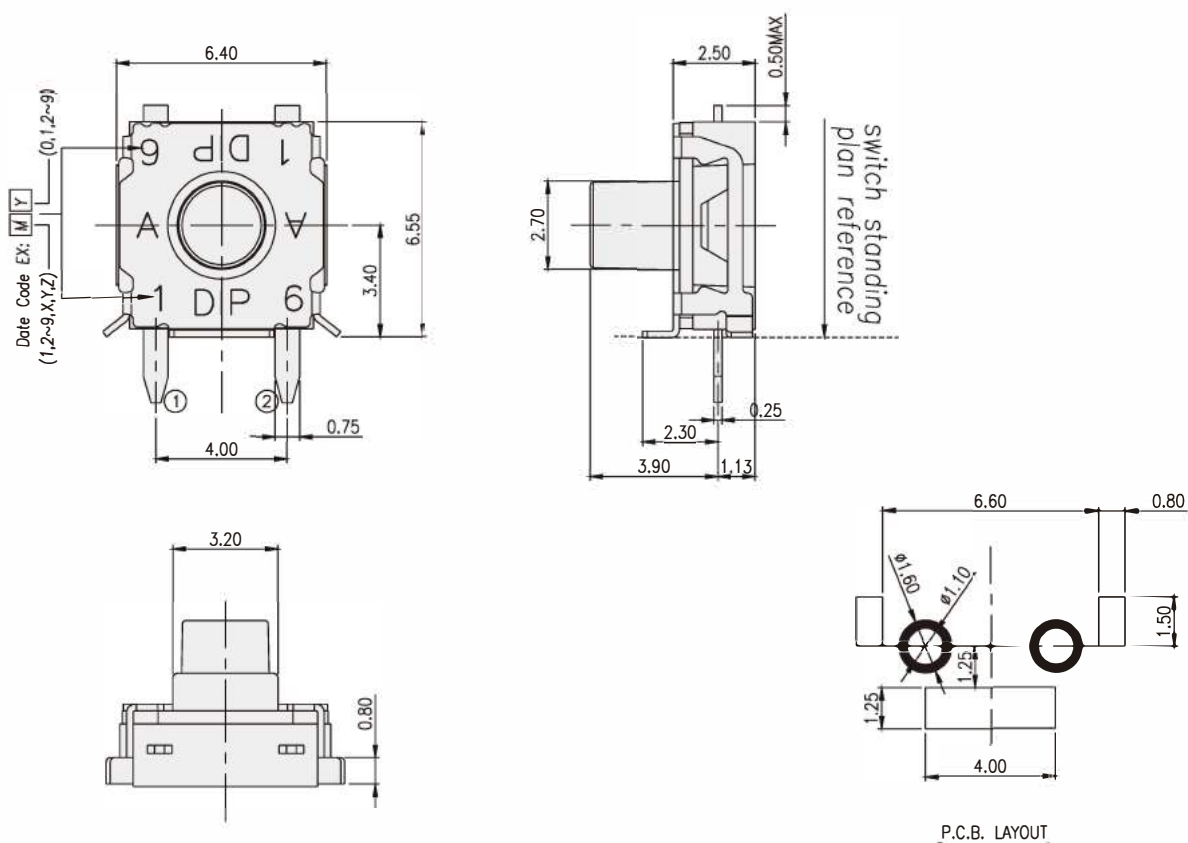
Halogen Free

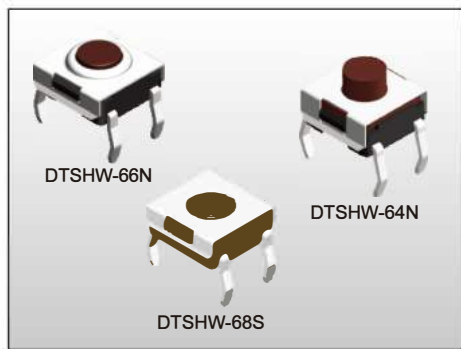
Plating: G=Silver Plating

Operating Force: S=Salmon, 350gf

TACT SWITCH

T6WA





FEATURES

- ※Sealed
- ※Snap in type
- ※Dust proof with high reliability

APPLICATION

- ※Audio, OA equipment
- ※Instrumentation, Communication
- ※White goods

SPECIFICATION

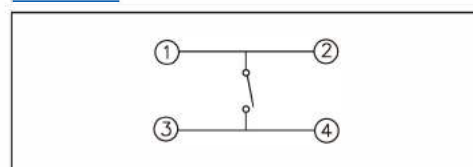
Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf, Brown(N) 66/677 160±50gf, Silver(S) 68 180±50gf, Brown(N) 69/67/65/64 260±70gf, Red(R) 69/67/66/65/64 360±90gf, Transparent(T) 69/67/65/677
Travel	0.25mm 68S/66N/66R/677 0.45mm(69/67N,R)(65/64N,R,T) 0.6mm 69/67T
Operating Life	100,000 cycles min. for 66/68/677 500,000 cycles min. for 69/67/65/64
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER

DTSHW-6 ☐ ☐ ☐ ☐ **-** ☐ **-** ☐ **B**

- Through Hole
- Washable
- Package: Tube
- V=RoHS & Lead Free Solderable
Q=Halogen Free
- Dimension H:
4=4.50mm (N, R)
5=3.50mm (N, R, T)
6=3.10mm (N, R)
7=5.20mm (N, R, T)
77=7.30mm (N, R, T)
8=2.30mm (S)
9=3.80mm (N, R, T)
- Operating Force:
N=Brown, 160gf(66N, 677N)
180gf(69N, 67N, 65N, 64N)
S=Silver, 160gf(68S)
R=Red, 260gf(69R, 67R, 66R, 65R, 64R)
T=Transparent, 360gf(69T, 67T, 65T, 677T)

CIRCUIT

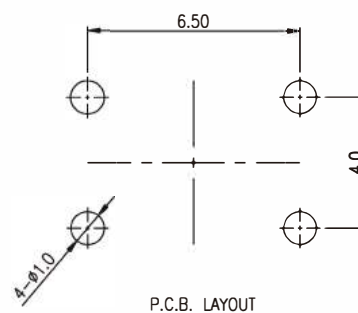
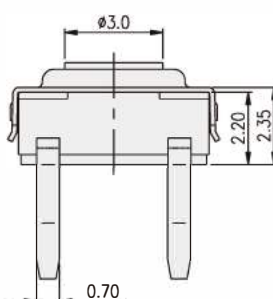
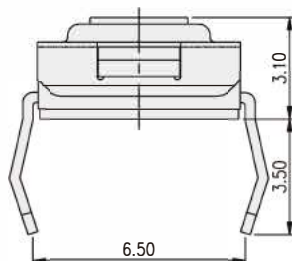
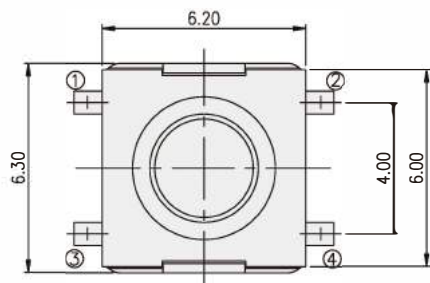


PACKAGE

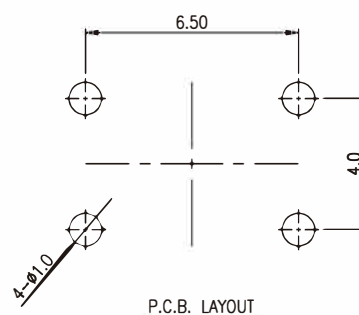
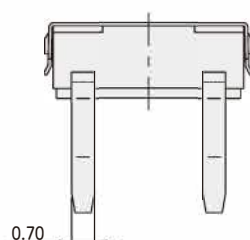
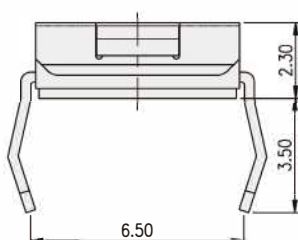
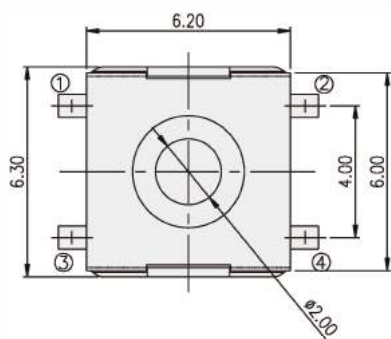
<Tube>
75 pcs

TACT SWITCH

DTSHW-66

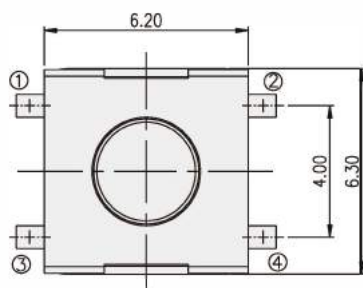


DTSHW-68

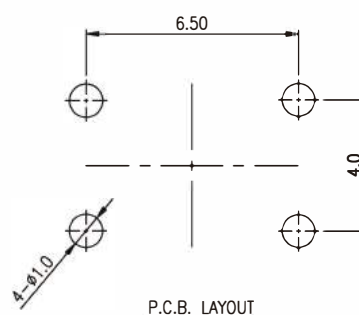
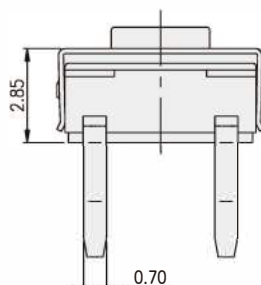
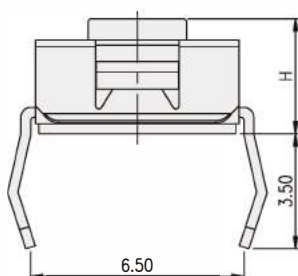


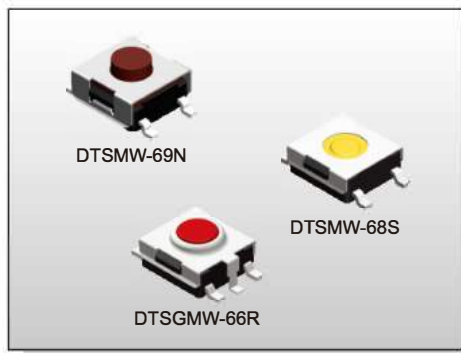
TACT SWITCH

DTSHW-6 □



PART NO.	H
DTSHW-64	4.50
DTSHW-65	3.50
DTSHW-67	5.20
DTSHW-69	3.80
DTSHW-677	7.30



**FEATURES**

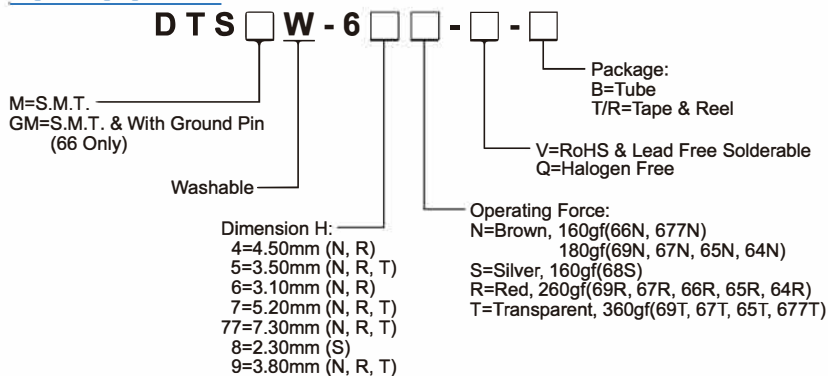
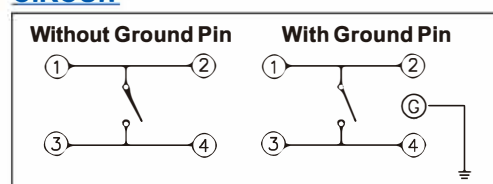
- ※Sealed
- ※Reflow solderable
- ※Dust proof with high reliability

APPLICATION

- ※Audio, OA equipment
- ※Instrumentation, Communication
- ※White goods

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf, Brown(N) 66/677 160±50gf, Silver(S) 68 180±50gf, Brown(N) 69/67/65/64 260±70gf, Red(R) 69/67/66/65/64 360±90gf, Transparent(T) 69/67/65/677
Travel	0.25mm 68S/66N/66R/677 0.45mm (69/67N,R)(65/64N,R,T) 0.6mm 69/67T
Operating Life	100,000 cycles min. for 68/66/677 500,000 cycles min. for 69/67/65/64
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER**CIRCUIT****PACKAGE****<Tube>**

75 pcs

<Tape & Reel>

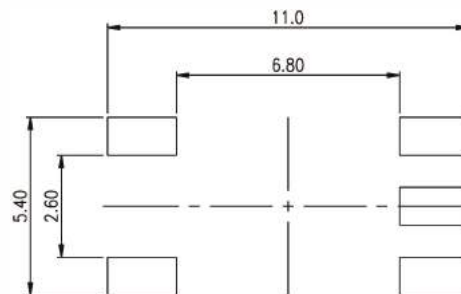
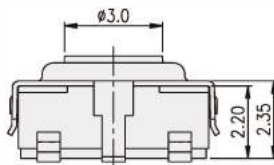
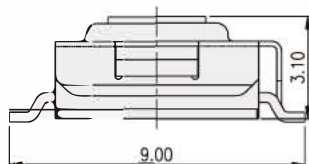
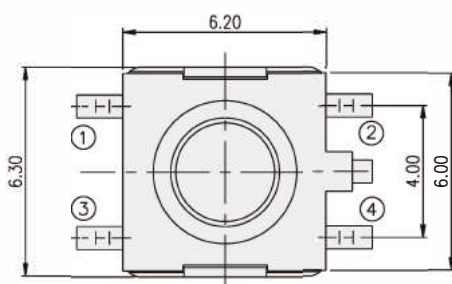
DTSGMW-66: 2000 pcs

DTSMW-68, 66: 2000 pcs

DTSMW-69, 65: 1900 pcs

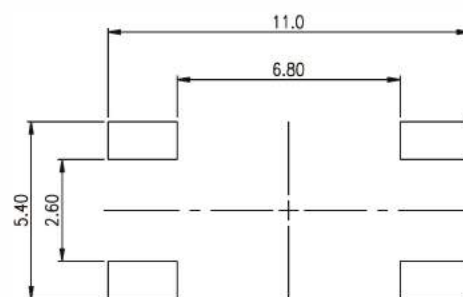
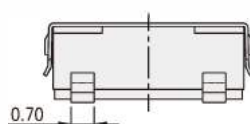
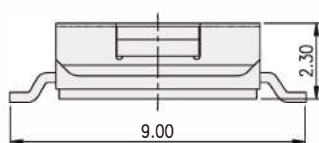
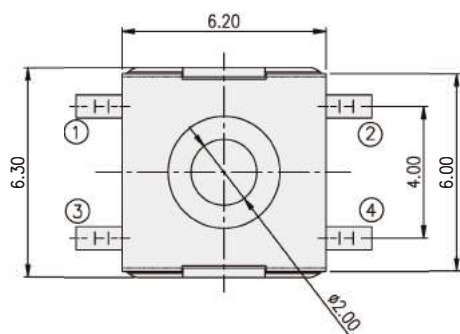
DTSMW-67, 64: 900 pcs

DTSMW-677: 650 pcs

DTSGMW-66

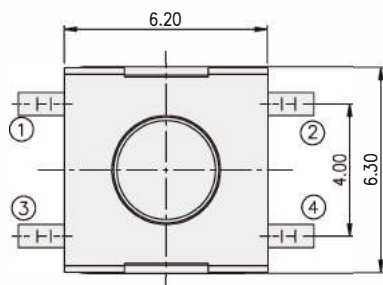
P.C.B. LAYOUT

DTSMW-68

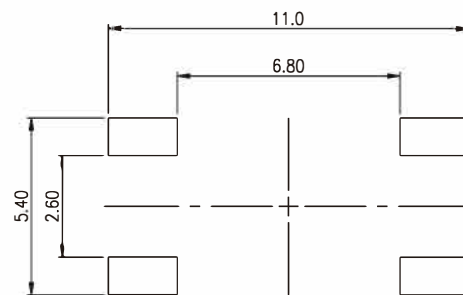
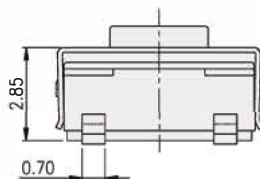
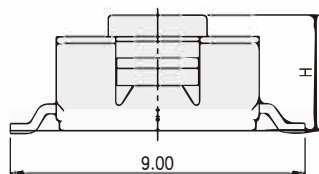


P.C.B. LAYOUT

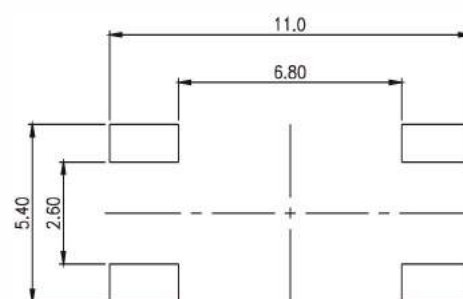
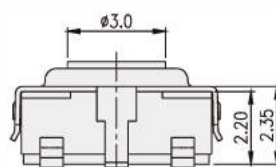
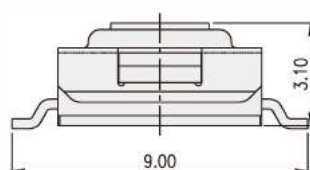
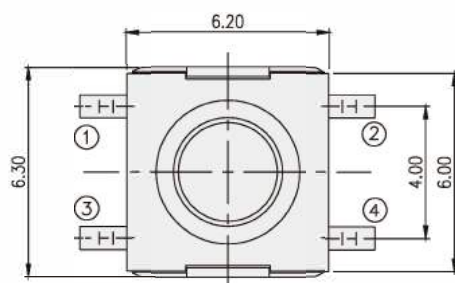
DTSMW-6



PART NO.	H
DTSMW-64	4.50
DTSMW-65	3.50
DTSMW-67	5.20
DTSMW-69	3.80
DTSMW-677	7.30

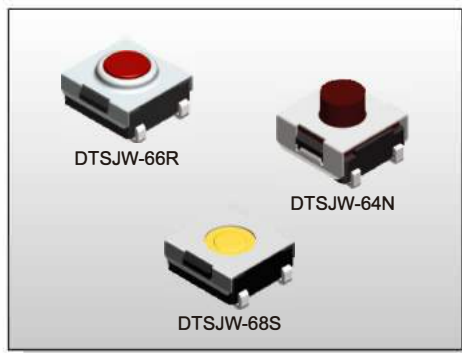


P.C.B. LAYOUT

DTSMW-66

P.C.B. LAYOUT

TACT SWITCH



FEATURES

- ※Sealed
- ※Reflow solderable
- ※Dust proof with high reliability

APPLICATION

- ※Audio, OA equipment
- ※Instrumentation, Communication
- ※White goods

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf, Brown(N) 66/677 160±50gf, Silver(S) 68 180±50gf, Brown(N) 69/67/65/64 260±70gf, Red(R) 69/67/66/65/64 360±90gf, Transparent(T) 69/67/65/677
Travel	0.25mm 68S/66N/66R/677 0.45mm (69/67N,R)(65/64N,R,T) 0.6mm 69/67T
Operating Life	100,000 cycles min. for 68/66/677 500,000 cycles min. for 69/67/65/64
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER

D T S J W - 6 [] - [] - []

J Bend
Washable

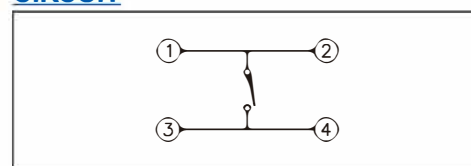
Package:
B=Tube
T/R=Tape & Reel

Dimension H:
4=4.50mm (N, R)
5=3.50mm (N, R, T)
6=3.10mm (N, R)
7=5.20mm (N, R, T)
77=7.30mm (N, R, T)
8=2.30mm (S)
9=3.80mm (N, R, T)

V=RoHS & Lead Free Solderable
Q=Halogen Free

Operating Force:
N=Brown, 160gf(66N, 677N)
180gf(69N, 67N, 65N, 64N)
S=Silver, 160gf(68S)
R=Red, 260gf(69R, 67R, 66R, 65R, 64R)
T=Transparent, 360gf (69T, 67T, 65T, 677T)

CIRCUIT



PACKAGE

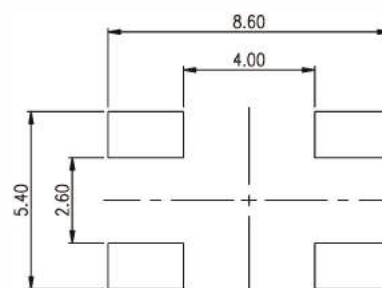
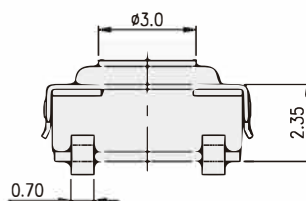
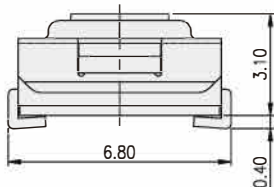
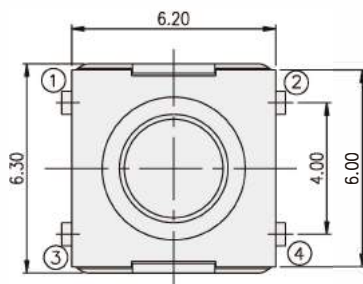
<Tube>

75 pcs

<Tape & Reel>

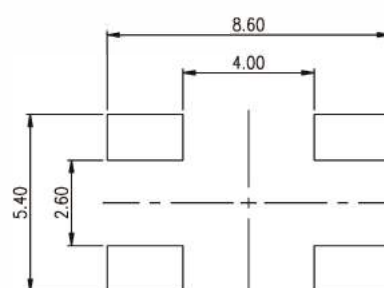
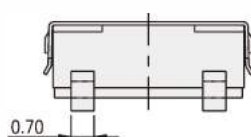
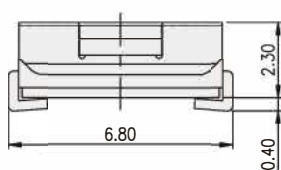
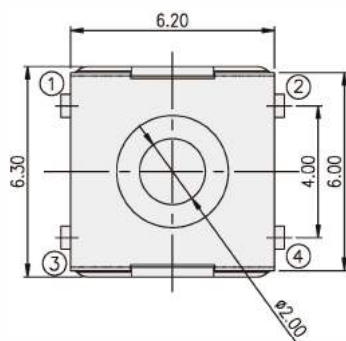
DTSJW-64, 67: 900 pcs
DTSJW-65, 69: 1800 pcs
DTSJW-66: 1900 pcs
DTSJW-68: 2000 pcs
DTSJW-677: 650 pcs

DTSJW-66



P.C.B. LAYOUT

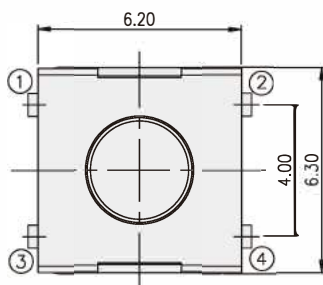
DTSJW-68



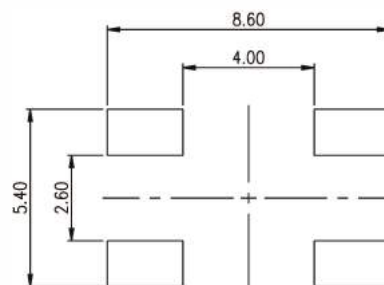
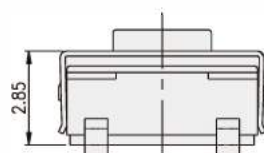
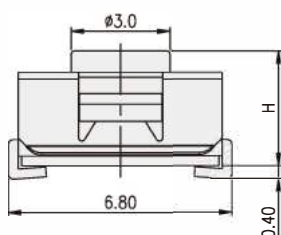
P.C.B. LAYOUT

TACT SWITCH

DTSJW-6□



PART NO.	H
DTSJW-64	4.50
DTSJW-65	3.50
DTSJW-67	5.20
DTSJW-69	3.80
DTSJW-677	7.30



P.C.B. LAYOUT



DTSJW2-67S

FEATURES

- ※Sealed
- ※Gold contact available
- ※Dust proof with high reliability

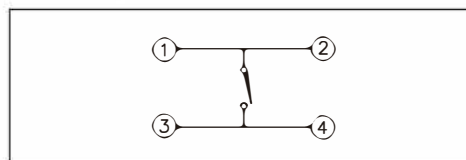
APPLICATION

- ※Audio, OA equipment
- ※Instrumentation, Communication
- ※White goods

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	200±50gf, 400±100gf
Travel	0.4/0.6mm
Operating Life	300, 000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT

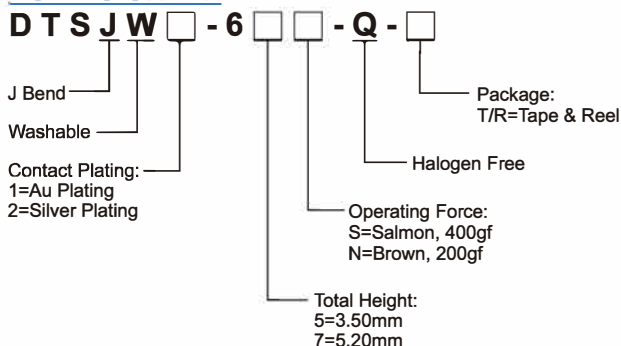


PACKAGE

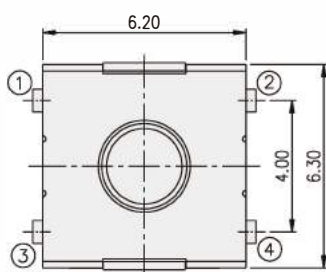
<Tape & Reel>

DTSJW□-65: 1900 pcs
DTSJW□-67: 900 pcs

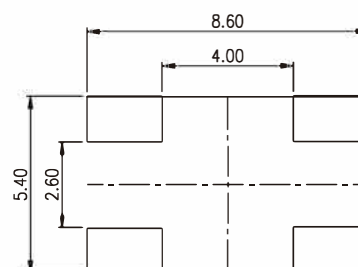
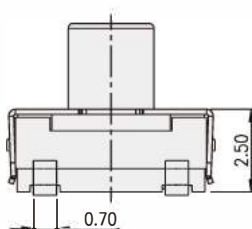
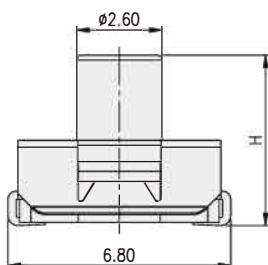
HOW TO ORDER



DTSJW□-6



PART NO.	H
DTSJW□-65	3.50
DTSJW□-67	5.20



P.C.B. LAYOUT



DTSYHL-62N

FEATURES

- ※Low profile with 2.5-3.5mm height
- ※Snap-in type
- ※Sharp click feeling

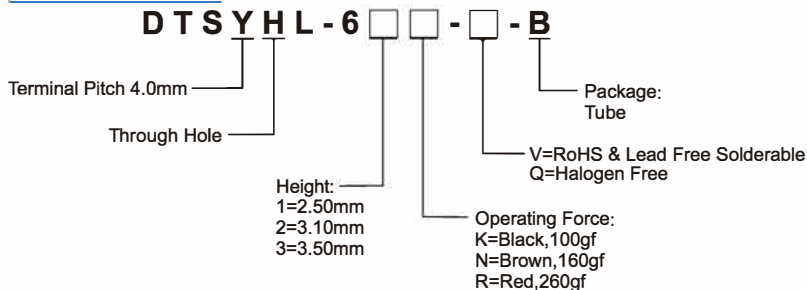
APPLICATION

- ※Audio, OA equipment
- ※Instrumentation
- ※Industrial

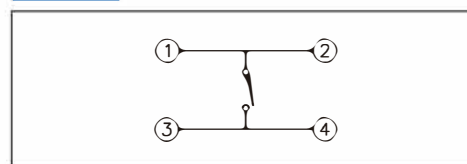
SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	100±50gf, Black(K) 160±50gf, Brown(N) 260±50gf, Red(R)
Travel	0.25mm
Operating Life	100,000 cycles for 260gf 1,000,000 cycles for 160, 100gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-40°C ~ +70°C

HOW TO ORDER



CIRCUIT



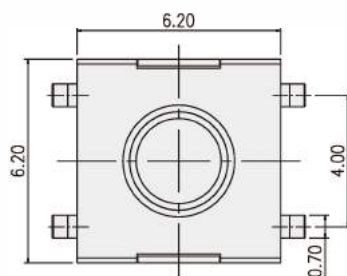
PACKAGE

<Tube>

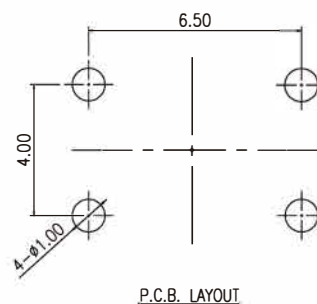
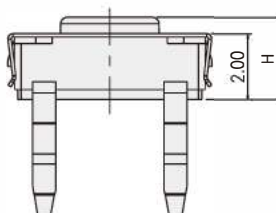
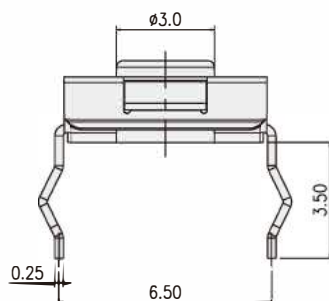
75 pcs

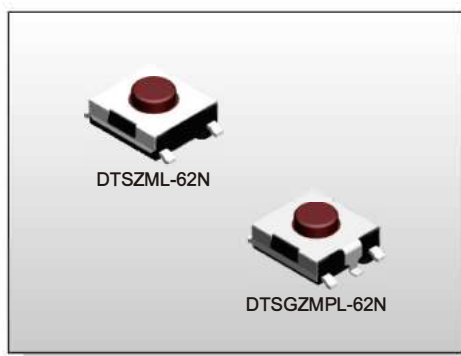
TACT SWITCH

DTSYHL-6



PART NO.	H
DTSYHL-61	2.50
DTSYHL-62	3.10
DTSYHL-63	3.50





FEATURES

- ※Thinner type with 2.5-5.25mm height
- ※Ground terminal available
- ※Reflow solderable

APPLICATION

- ※Audio, OA equipment
- ※Instrumentation
- ※Consumer electronics

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	100±50gf, Black(K) 160±50gf, Brown(N) 260±50gf, Red(R)
Travel	0.25mm
Operating Life	100,000 cycles for 260gf 1,000,000 cycles for 160, 100gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER

D T S ☐ **Z M** ☐ **L - 6** ☐ ☐ - ☐ - ☐

☐=Without Ground Pin
G=With Ground Pin

Terminal Pitch 4.5mm

☐=Without Post
P=With Post

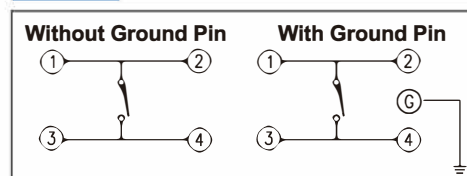
Package:
☐=Bag
T/R=Tape & Reel
B=Tube
(Only For Without Post)

V=RoHS & Lead Free Solderable
Q=Halogen Free

Operating Force:
K=Black,100gf
N=Brown,160gf
R=Red,260gf

Height:
1=2.50mm
2=3.10mm
3=3.50mm
4=5.25mm

CIRCUIT



PACKAGE

<Tube>

75 pcs

75 pcs
<Tape & Reel>

DTS(G)ZML-61□: 2500 pcs

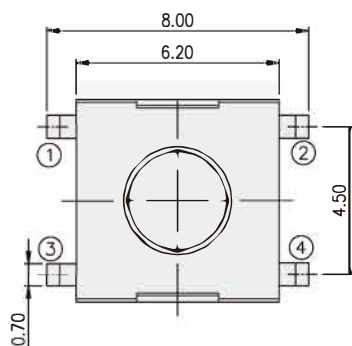
DTS(G)ZML-62□: 2500 pcs

DTS(G)ZMPL-61, 62: 1200 pcs

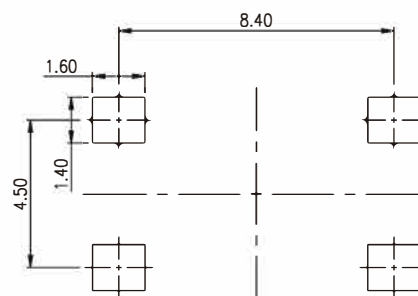
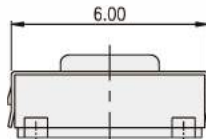
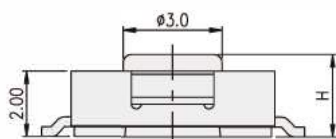
DTS(G)ZM(P)L-63: 1200 pcs

DTS(G)ZML(P)L-64: 900 pcs

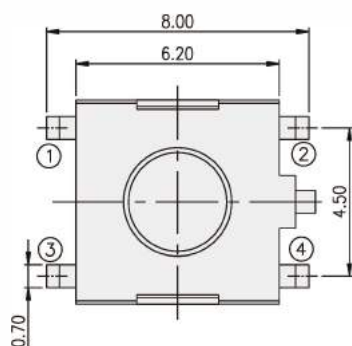
DTSZML-6



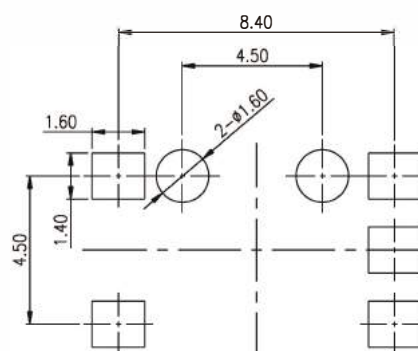
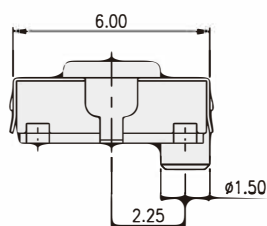
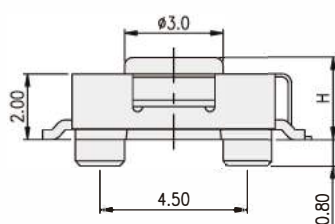
PART NO.	H
DTS□ZML-61	2.50
DTS□ZML-62	3.10
DTS□ZML-63	3.50
DTS□ZML-64	5.25



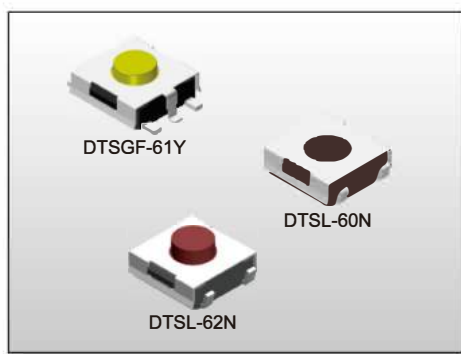
P.C.B. LAYOUT

DTSGZMPL-6

PART NO.	H
DTS□ZMPL-61	2.50
DTS□ZMPL-62	3.10
DTS□ZMPL-63	3.50
DTS□ZMPL-64	5.25



P.C.B. LAYOUT



FEATURES

- ※Thinner type with 2.0-3.1mm height
- ※Ground terminal available
- ※Reflow solderable

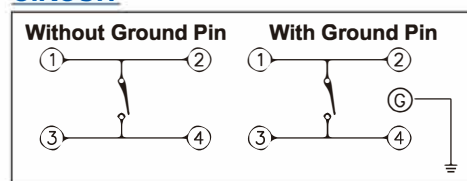
APPLICATION

- ※Audio, OA equipment
- ※Instrumentation
- ※White goods

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	100±50gf, Black(K) 160±50gf, Brown(N) 200±50gf, Brown(N) 62 Only 260±50gf, Red(R) 320±80gf, White(S) 520±130gf, Yellow(Y)
Travel	0.25mm
Operating Life	300,000 cycles for 520/320gf 500,000 cycles for 260/200gf 1,000,000 cycles for 160/100gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

CIRCUIT



PACKAGE

<Tube>

75 pcs

<Tape & Reel>

DTS(G)F-60□ / DTSF-61□: 3000 pcs

DTS(G)L-60□ / DTS(G)L-61□: 2700 pcs

DTS(G)L-62□ / DTS(G)F-62□: 2500 pcs

DTSGF-61□: 2500 pcs

HOW TO ORDER

DTS - 6 -

□=Without Ground Pin
G=With Ground Pin

L=L S.M.T.
F=F S.M.T.

Total Height:
0=2.00mm
1=2.50mm
2=3.10mm

Operating Force: P=Hard
K=Black, 100gf
N=Brown, 160gf
R=Red, 260gf
S=White, 320gf
Y=Yellow, 520gf
N=Brown, 200gf <Soft actuator 62 Only>

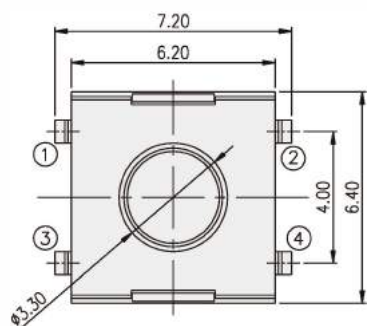
- Package:
B=Tube
T/R=Tape & Reel

-V=RoHS & Lead Free Solderable
Q=Halogen Free

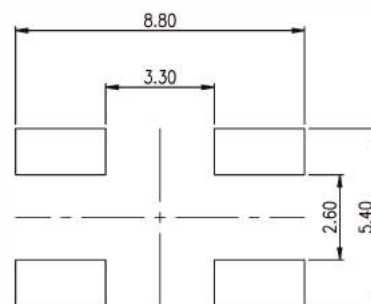
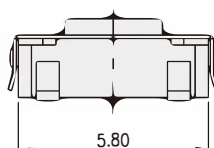
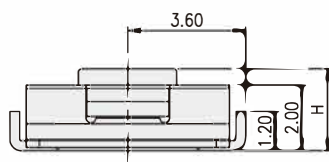
- Actuator Type:
☐=Soft <62> / Hard <60, 61>
 P=Hard <62 Only>

CONTACT SWITCH

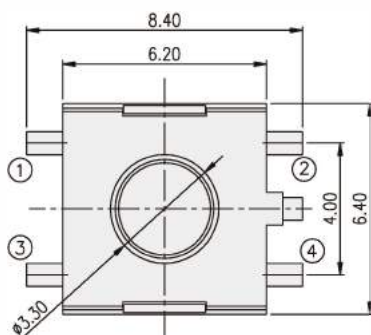
DTSL-6



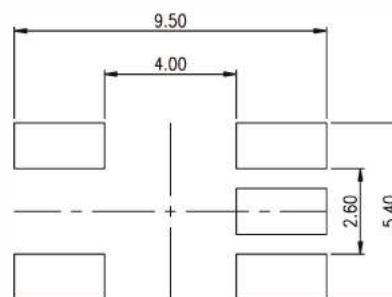
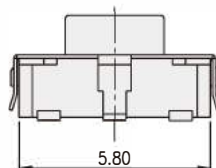
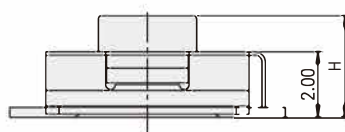
PART NO.	H
DTSL-60	2.00
DTSL-61	2.50
DTSL-62	3.10



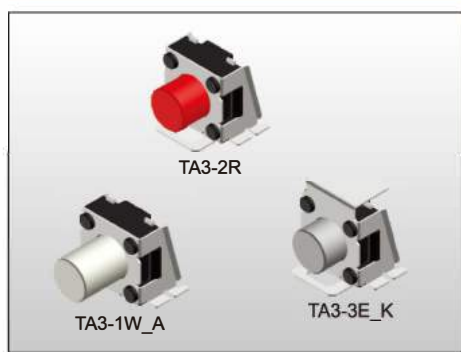
P.C.B. LAYOUT

DTSGF-6

PART NO.	H
DTSGF-60	2.00
DTSGF-61	2.50
DTSGF-62	3.10



P.C.B. LAYOUT



FEATURES

- ✖Extended bracket available
- ✖Easy to pick & place with top tab

APPLICATION

- ※Data storage, Server
- ※Instrumentation
- ※Audio, OA equipment

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	10MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	185±50gf, 260±50gf
Travel	0.15mm
Operating Life	200, 000 cycles
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER

TA 3 - - - -

Stem Height:
1=4.35mm
2=2.80mm
3=2.30mm
4=4.00mm
6=1.12mm

Color Of Stem:
W=White
R=Red
E=Gray

Operating Force:
2=185gf
3=260gf

Package:
T/R=Tape & Reel

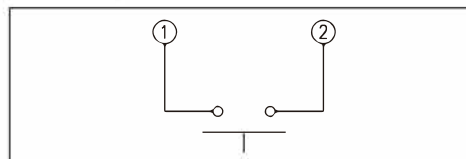
- V=RoHS & Lead Free Solderable
Q=Halogen Free

- □=Silver Plating
S=Silicone Stem, Terminal Silver Plating
(For TA3-3)

□=Without Tab
K=Tab for auto-dipping

☐=With Solder Pad
 A=Without Solder Pad

CIRCUIT

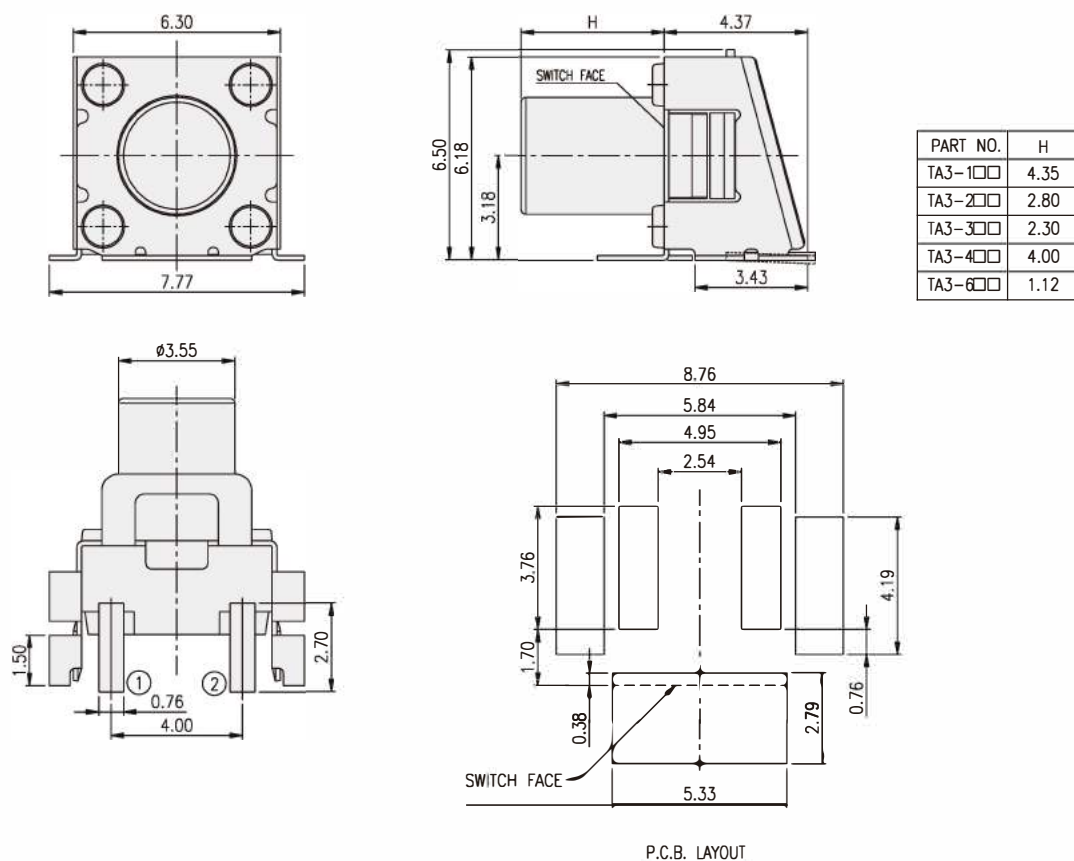


PACKAGE

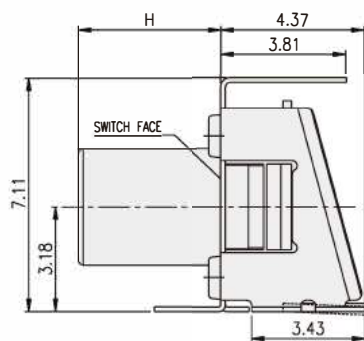
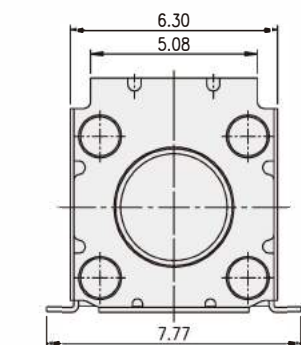
<Tape & Reel>

TA3: 600 pcs

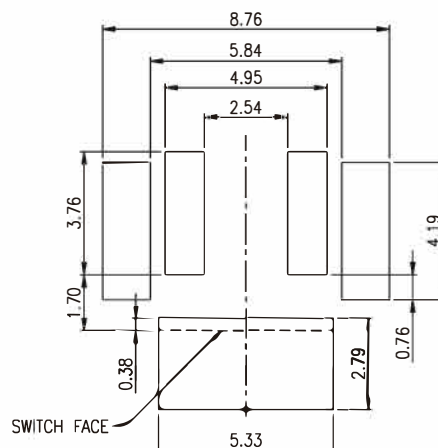
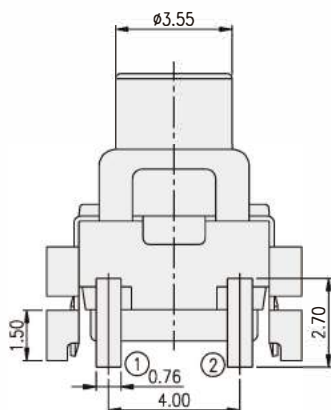
TA3-K: 550 pcs

TA3-

TA3-□□K

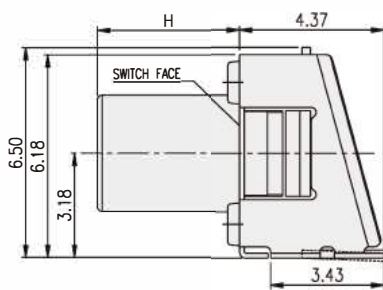
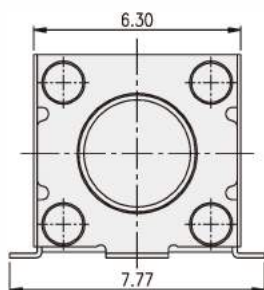


PART NO.	H
TA3-1□□K	4.35
TA3-2□□K	2.80
TA3-3□□K	2.30
TA3-4□□K	4.00
TA3-6□□K	1.12

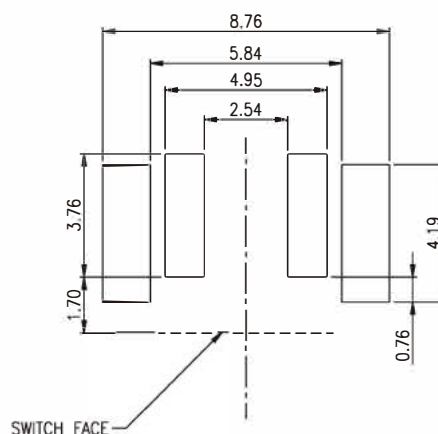
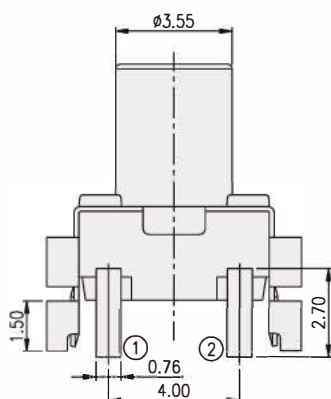


P.C.B. LAYOUT

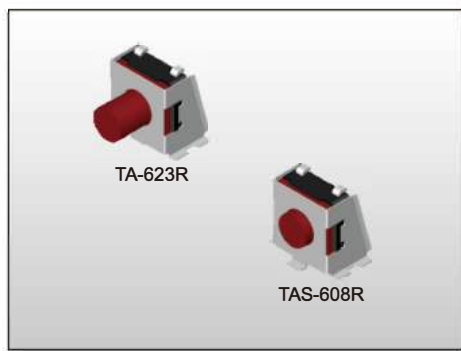
TA3-□□A



PART NO.	H
TA3-1□□A	4.35
TA3-2□□A	2.80
TA3-3□□A	2.30
TA3-4□□A	4.00
TA3-6□□A	1.12



P.C.B. LAYOUT



FEATURES

- ※Right angle (SMT type)
- ※Support terminal available
- ※Reflow solderable

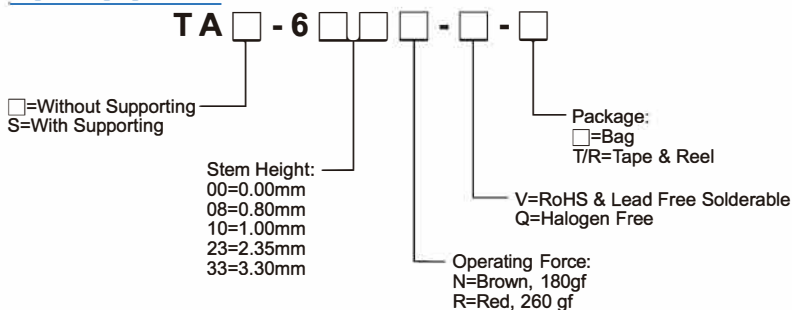
APPLICATION

- ※Audio, OA equipment
- ※Instrumentation
- ※Hair dryers

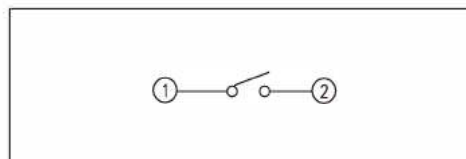
SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	180±50gf, Brown(N) 260±70gf, Red(R)
Travel	0.45mm
Operating Life	500,000 cycles
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER



CIRCUIT



PACKAGE

<Bag>

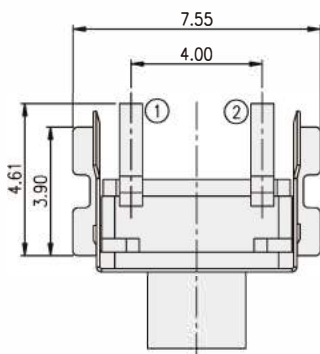
500 pcs

<Tape & Reel>

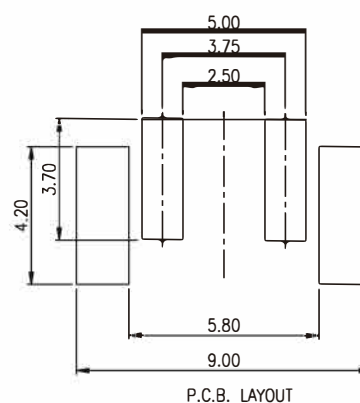
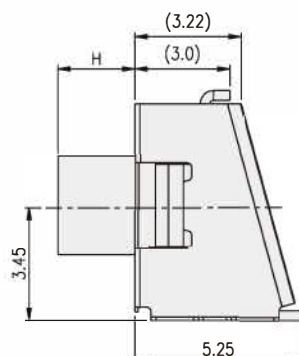
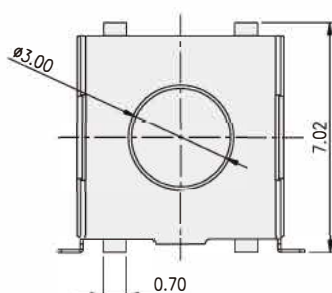
TA(S)-600 / 608 / 610 / 623: 700 pcs

TA(S)-633: 500 pcs

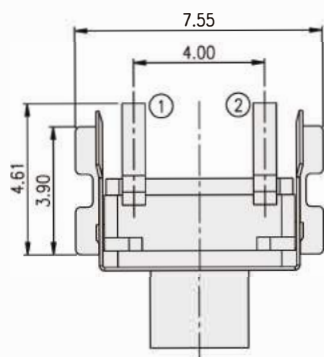
TA-6



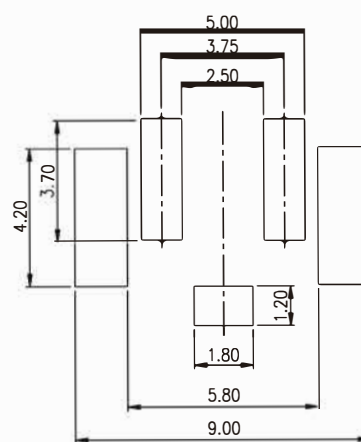
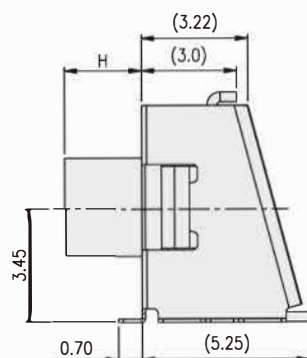
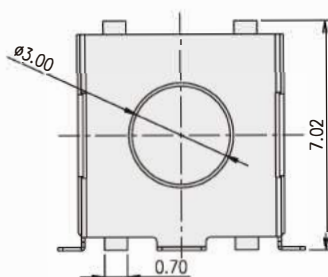
PART NO.	H
TA-600	0
TA-608	0.80
TA-610	1.00
TA-623	2.35
TA-633	3.30



TAS-6



PART NO.	H
TAS-600	0
TAS-608	0.80
TAS-610	1.00
TAS-623	2.35
TAS-633	3.30



P.C.B. LAYOUT



T1A

FEATURES

- ※ Compact-size 2.8*1.9mm
- ※ Low profile with 0.60mm
- ※ Long operating cycles

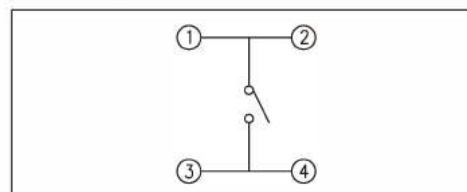
APPLICATION

- ※ Smart phone
- ※ Digital camera, Medical
- ※ Portable electronic device
- ※ 3C products

SPECIFICATION

Contact Rating	10uA, 1V DC to 50mA, 12V DC
Contact Resistance	500mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	160±50gf / 200±50gf
Travel	0.13mm
Operating Life	300,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

<Tape & Reel>
16000 pcs

HOW TO ORDER

T 1 A **Q R**

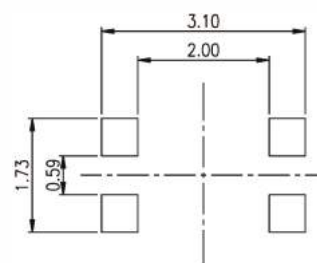
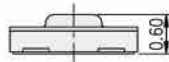
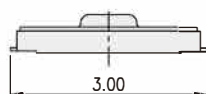
Package:
Tape & Reel

Halogen Free

Operating Force:
2=160gf
3=200gf

TACT SWITCH

T1A



P.C.B. LAYOUT



T1B

FEATURES

- ※ Compact-size 2.6*1.6mm
- ※ Low profile with 0.55mm
- ※ 200,000 operating cycles

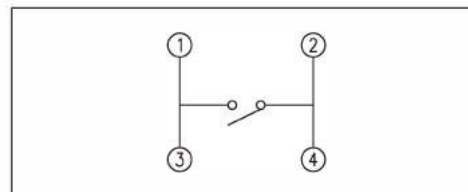
APPLICATION

- ※ Smart phone
- ※ Digital camera, Medical
- ※ Portable electronic device
- ※ 3C products

SPECIFICATION

Contact Rating	10uA, 2V DC to 20mA, 15V DC
Contact Resistance	500mΩ max.
Insulation Resistance	50MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf
Travel	0.11mm
Operating Life	200,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

<Tape & Reel>
8000 pcs

HOW TO ORDER

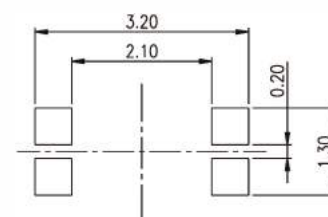
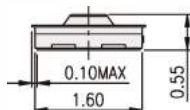
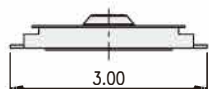
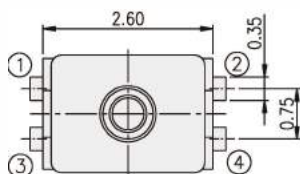
T 1 B **Q R**

Package: Tape & Reel

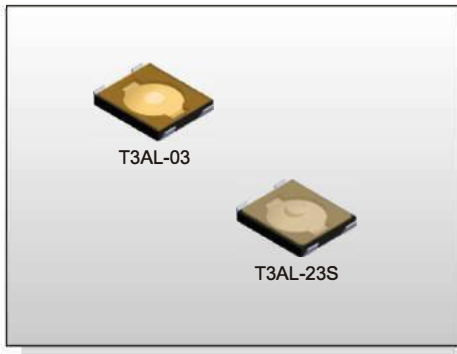
Halogen Free

Operating Force: 2=160gf

T1B



P.C.B. LAYOUT



FEATURES

- ※ Compact-sized 2.6x3mm
- ※ Low profile with 0.45mm / 0.65mm

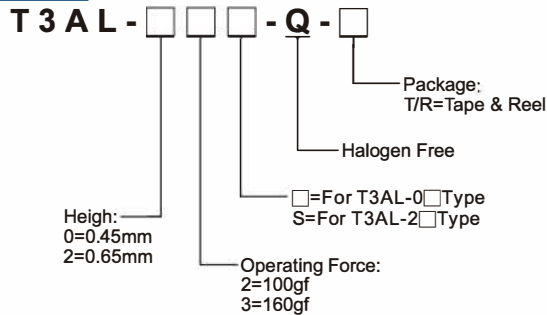
APPLICATION

- ※ Smart phone
- ※ Digital camera, Medical
- ※ Portable electronic device

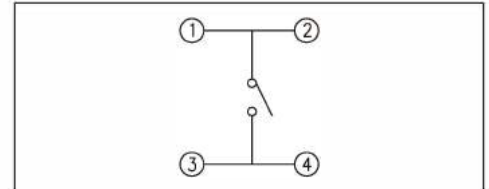
SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	500mΩ max.
Insulation Resistance	50MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	100±50gf, 160±50gf
Travel	0.15mm
Operating Life	100,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER



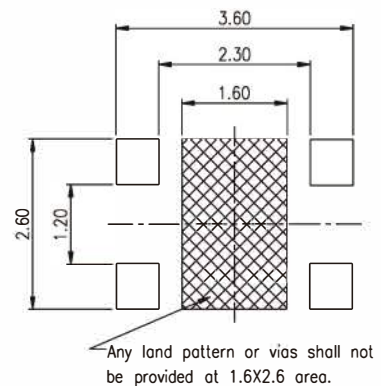
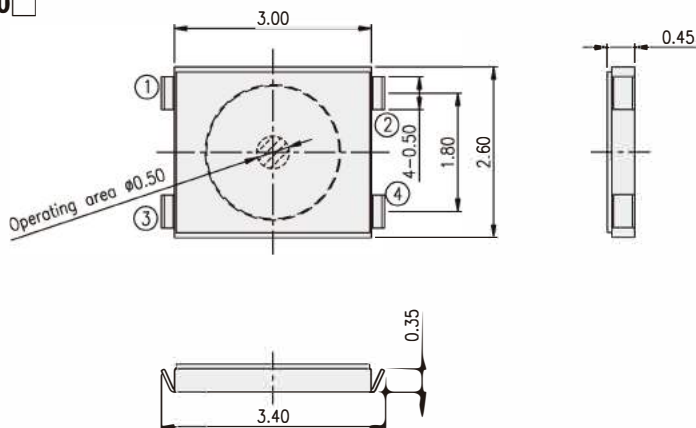
CIRCUIT



PACKAGE

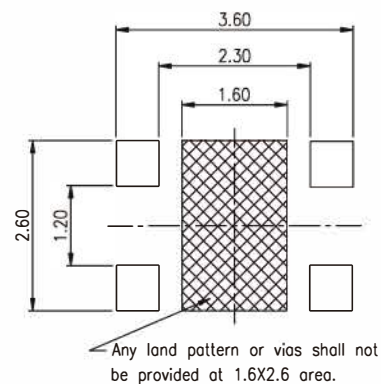
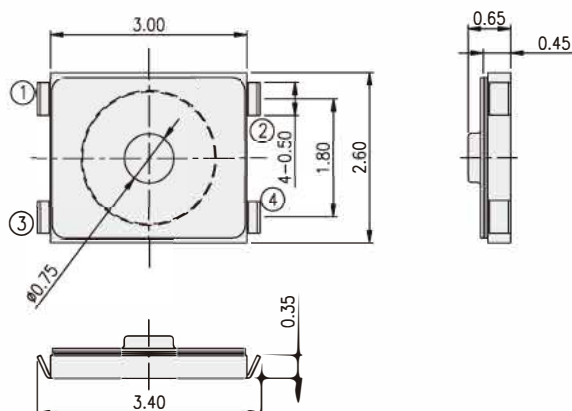
<Tape & Reel>
8000 pcs

T3AL-0□

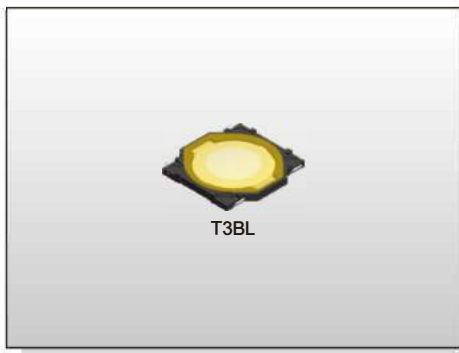


P.C.B. LAYOUT

T3AL-2□S



P.C.B. LAYOUT



FEATURES

- ※ Compact-sized 3.7x3.7mm
- ※ Low profile of 0.35mm height
- ※ 500,000 life cycles operating

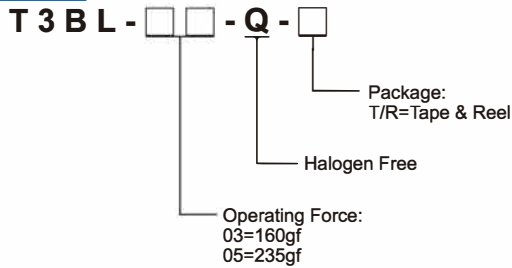
APPLICATION

- ※ Smart phone
- ※ Digital camera, Medical
- ※ Portable electronic device

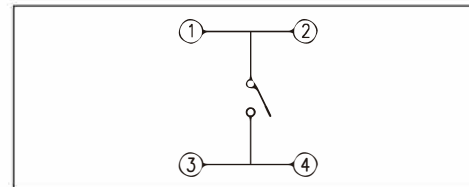
SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	160±50gf/235±60gf
Travel	0.15mm
Operating Life	50,000 cycles for 235gf 500,000 cycles for 160gf
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER



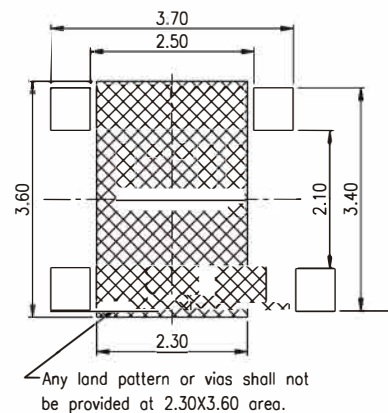
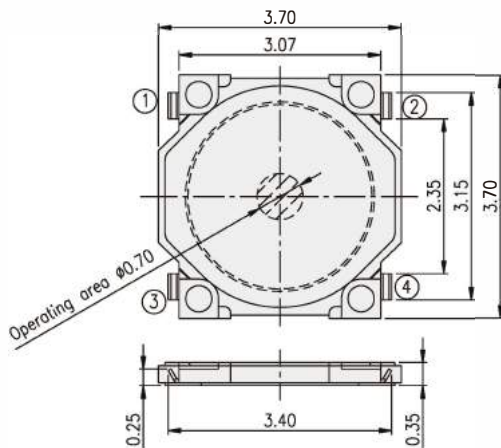
CIRCUIT



PACKAGE

<Tape & Reel>
8000 pcs

T3BL



P.C.B. LAYOUT



T3C

FEATURES

- ※ Compact-size 3.0*2.0mm
- ※ Low profile with 0.60mm
- ※ Long operating cycles

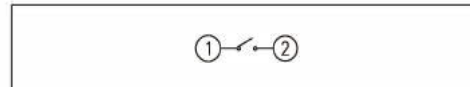
APPLICATION

- ※ Smart phone
- ※ Digital camera, Medical
- ※ Portable electronic device
- ※ 3C products

SPECIFICATION

Contact Rating	10uA, 1V DC to 50mA, 12V DC
Contact Resistance	500mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	160±50gf / 180±50gf / 240±60gf
Travel	0.13mm
Operating Life	300,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

<Tape & Reel>
16000 pcs

HOW TO ORDER

T 3 C □ Q R

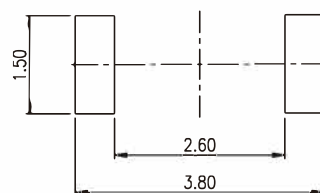
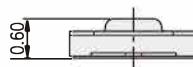
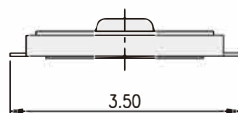
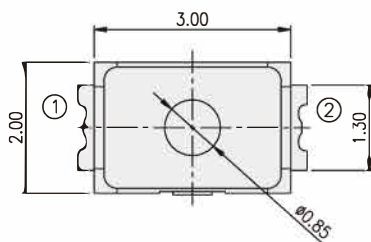
Package:
Tape & Reel

Halogen Free

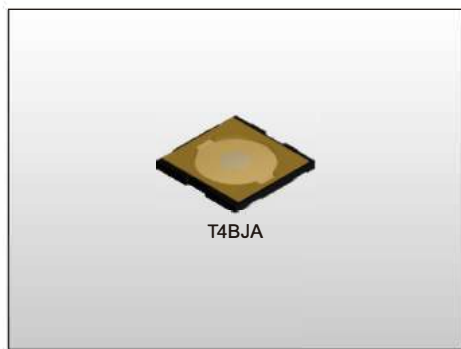
Operating Force:
2=160gf
3=180gf
4=240gf

TACT SWITCH

T3C



P.C.B. LAYOUT



FEATURES

- ※ Compact-sized 4.8x4.8mm
- ※ Low profile of 0.55mm height
- ※ Long operating life

APPLICATION

- ※ Smart phone
- ※ Digital camera, Medical
- ※ Portable electronic device

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	100±50gf/160±50gf/200±50gf 260±50gf/360±60gf
Travel	0.2mm
Operating Life	200,000 cycles for 360gf 500,000 cycles for 260/200gf 1,000,000 cycles for 160/100gf
Operating Temp.	-30°C ~ +80°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER

T 4 B J ☐ ☐ ☐ **B Q R**

Terminal Pitch:
A=2.80mm
B=3.70mm

Operating Force:

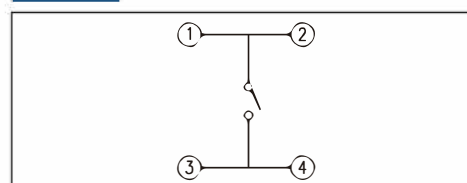
10=100gf
16=160gf
20=200gf
26=260gf
36=360gf

Package:
Tape & Reel

Halogen Free

Double Dome

CIRCUIT

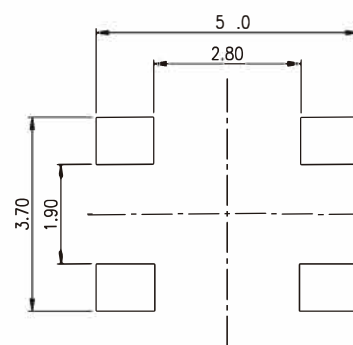
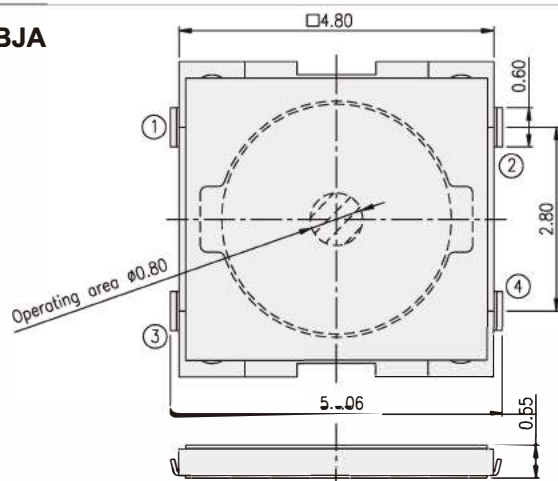


PACKAGE

<Tape & Reel>
8000 pcs

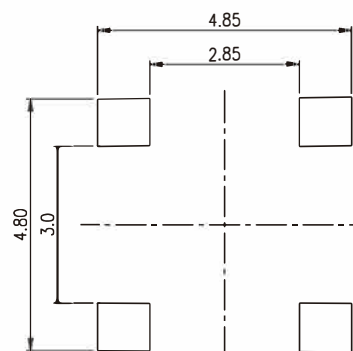
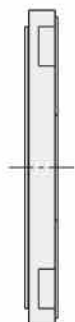
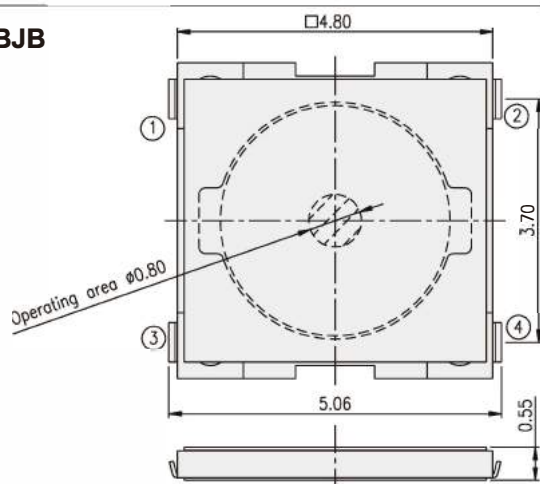
TACT SWITCH

T4BJA



P.C.B. LAYOUT

T4BJB



P.C.B. LAYOUT





FEATURES

- ※ Compact-sized 4.4x4.4mm
- ※ Low profile of 0.55mm height
- ※ Long operating life

APPLICATION

- ※ Smart phone
- ※ Digital camera, Medical
- ※ Portable electronic device

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	300V AC/1 minute
Operating Force	100±50gf/160±50gf/200±50gf 260±50gf
Travel	0.2mm
Operating Life	500,000 cycles for 260/200gf 1,000,000 cycles for 160/100gf
Operating Temp.	-20°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER

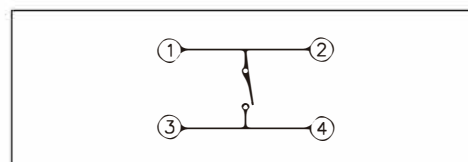
T J - 4 ☐ ☐ ☐ **B Q R**

A=With Push Button
☐=Without Push Button

Operating Force:
10=100gf
16=160gf
20=200gf
26=260gf

Package:
Tape & Reel
Halogen Free
Double Dome

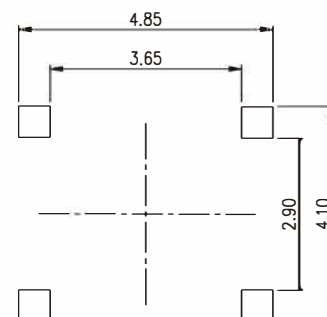
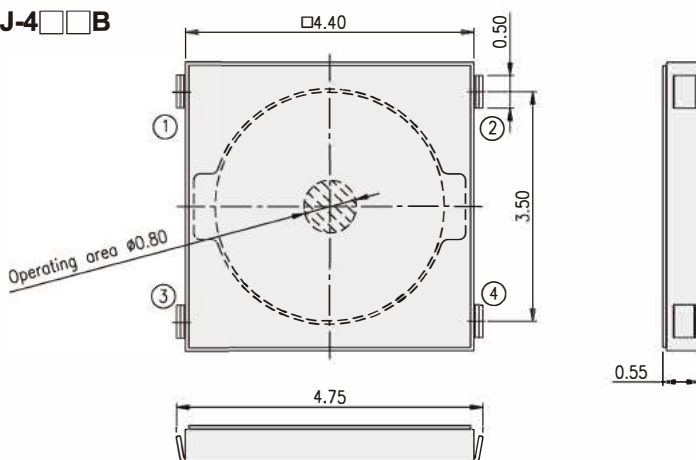
CIRCUIT



PACKAGE

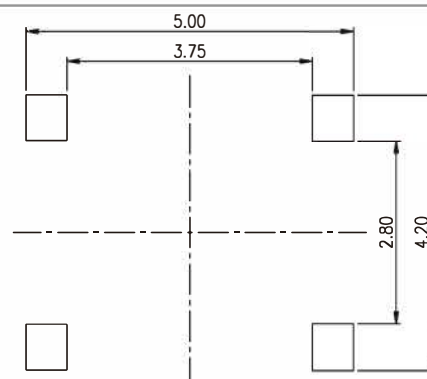
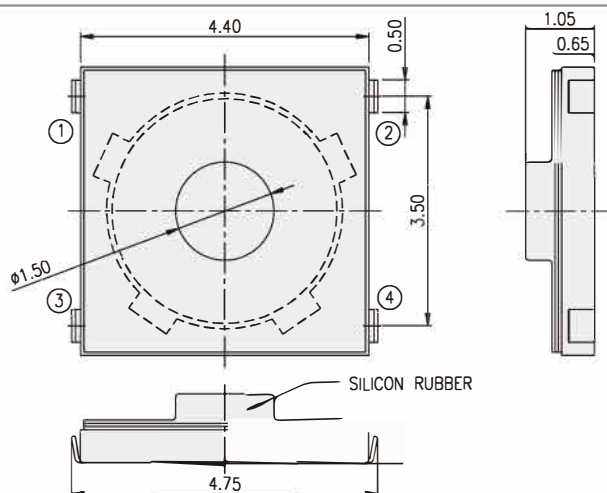
<Tape & Reel>
TJ-4: 8000 pcs
TJ-4A: 5000 pcs

TJ-4 ☐ ☐ **B**

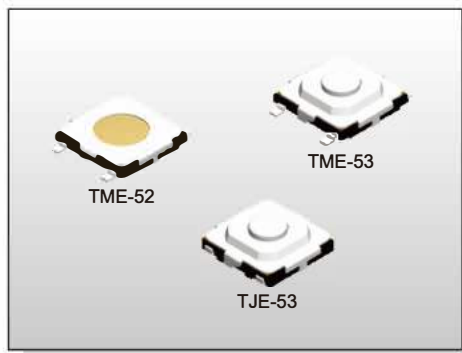


P.C.B. LAYOUT

TJ-4A



P.C.B. LAYOUT



FEATURES

- ※ Compact-sized 5.2x5.2mm
- ※ Long operating life
- ※ With ground terminal

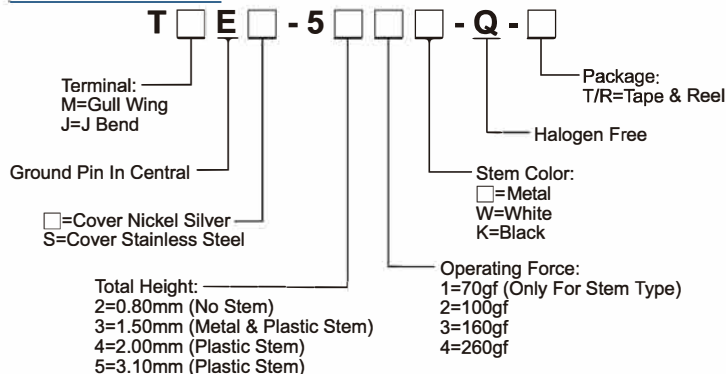
APPLICATION

- ※ Smart phone
- ※ Digital camera, Medical
- ※ Portable electronic device

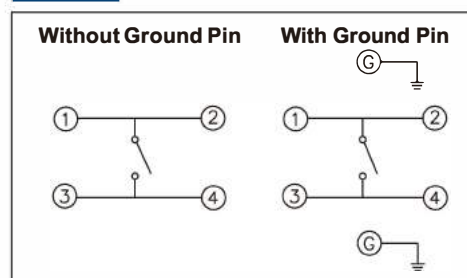
SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	70±50gf/100±50gf/160±50gf 260±50gf
Travel	0.25mm
Operating Life	200,000 cycles for 260gf 1,000,000 cycles for 160/100/70gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER



CIRCUIT

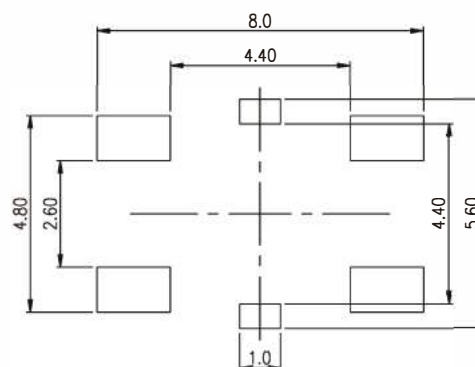
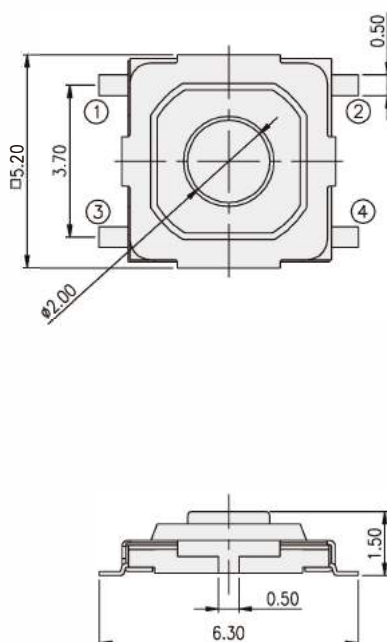


PACKAGE

<Tape & Reel>

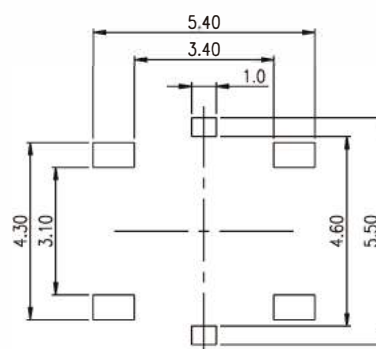
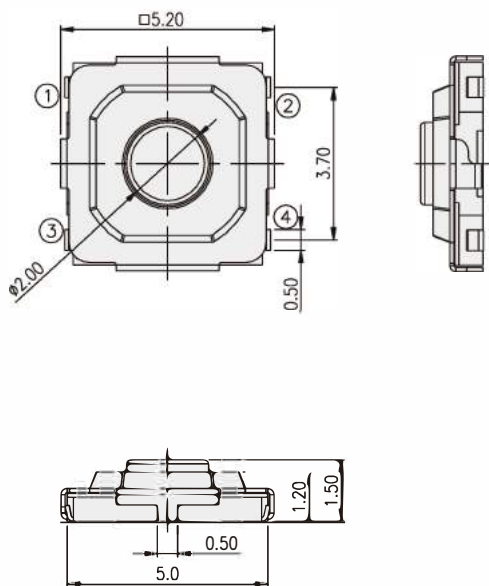
- T□E-52, 53=4000 pcs
- T□E-54=3000 pcs
- T□E-55=2000 pcs

TME-5



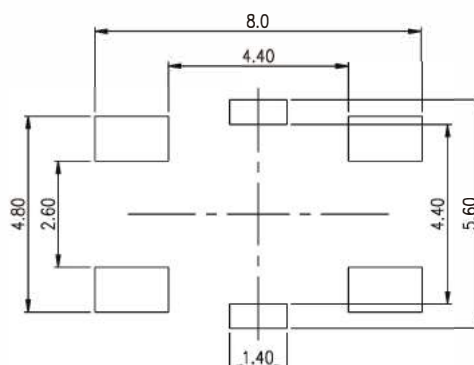
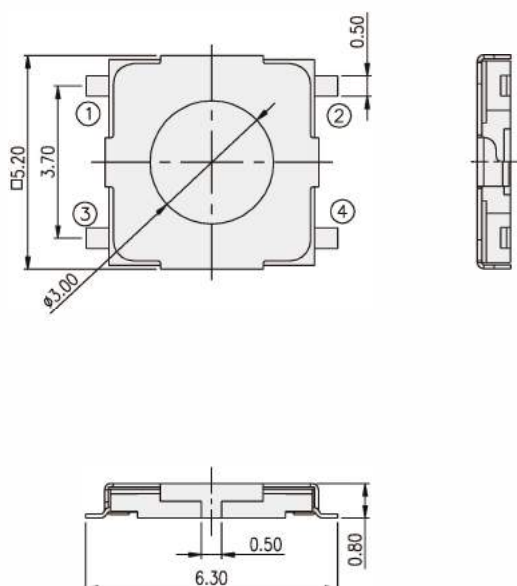
P.C.B. LAYOUT

TJE-53

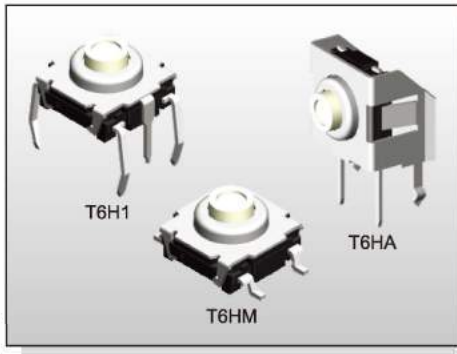


P.C.B. LAYOUT

TME-52



P.C.B. LAYOUT



FEATURES

- ✱ Support automatic insertion
- ✱ Vertical actuation
- ✱ Dust proof structure

APPLICATION

- ✱ Automotive
- ✱ Industrial
- ✱ Instrumentation

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	130±50gf/160±50gf 300±50gf/500±100gf
Travel	0.5mm
Operating Life	200,000 cycles for 500gf 500,000 cycles for 300gf 1,000,000 cycles for 160/130gf
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER

T 6 H - - - Q

A=Right angle series
H=Through holes
M=S.M.T Type
1=6x6 ground terminal type
2=S.M.T ground terminal type

Package Style:
R=Tape & Reel (S.M.T. Type Only)
B=Tube

Halogen Free

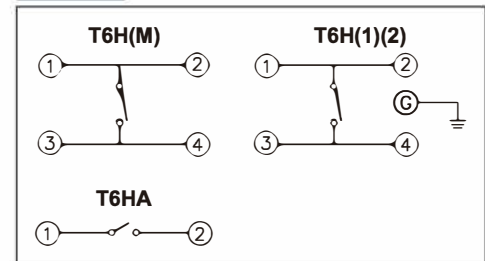
Contact Plating:
G = Plating Ag
A = Plating Au

Operating Force:
2=130gf
3=160gf
5=300gf
6=500gf

Total Height :

SMT/Through hole	Right angle
1=4.70mm	1=6.04mm
2=5.20mm	2=6.54mm
3=6.90mm	3=8.24mm
5=10.0mm	5=11.34mm

CIRCUIT



PACKAGE

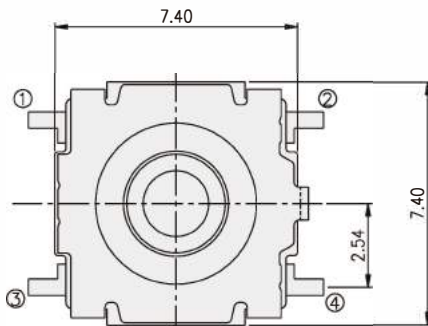
<Tube>

T6HH, T6H1: 60 pcs
T6HA: 52 pcs

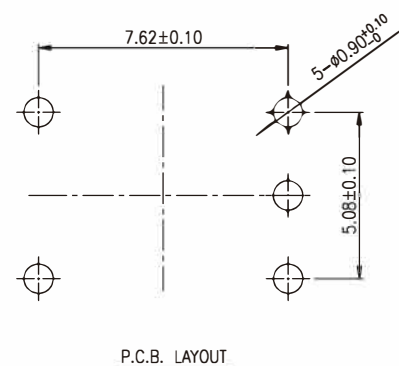
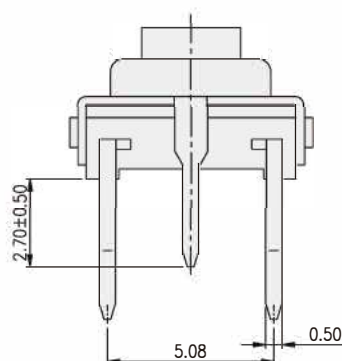
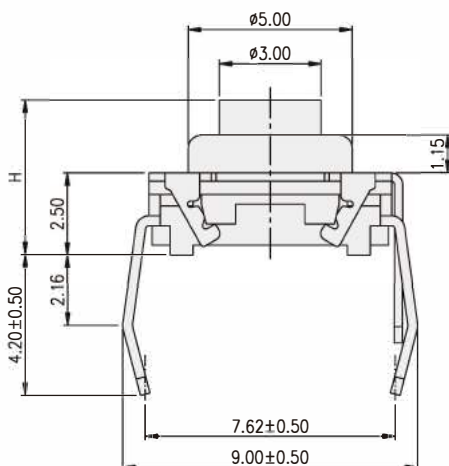
<Tape & Reel>

T6HM-(1)(2): 700 pcs
T6HM-3: 500 pcs
T6HM-5: 350 pcs

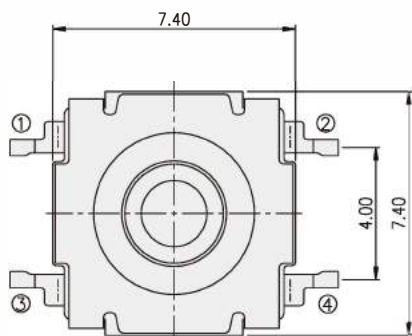
T6H1



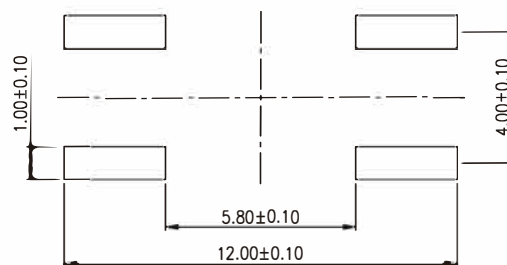
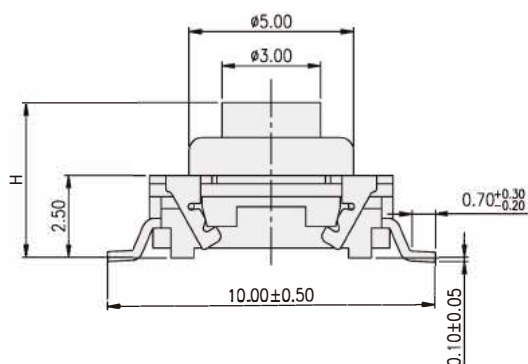
PART NO.	H
T6H1-1	4.70
T6H1-2	5.20
T6H1-3	6.90
T6H1-5	10.00



T6HM

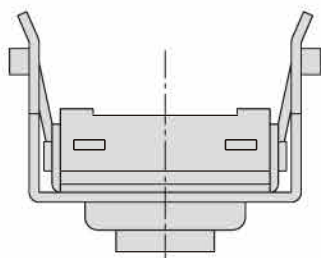


PART NO.	H
T6HM-1	4.70
T6HM-2	5.20
T6HM-3	6.90
T6HM-5	10.00

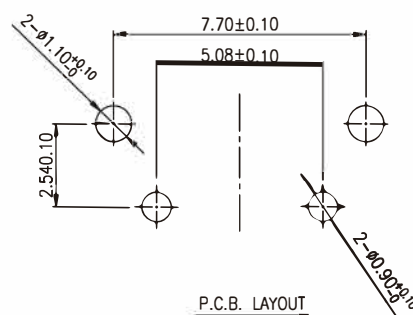
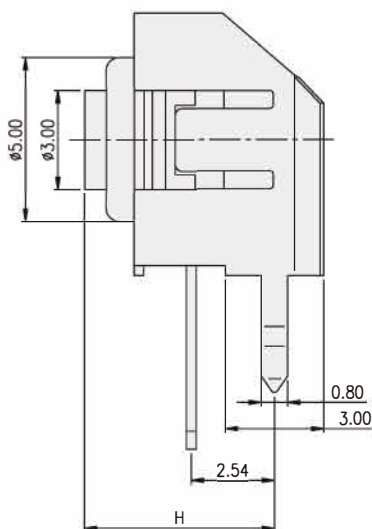
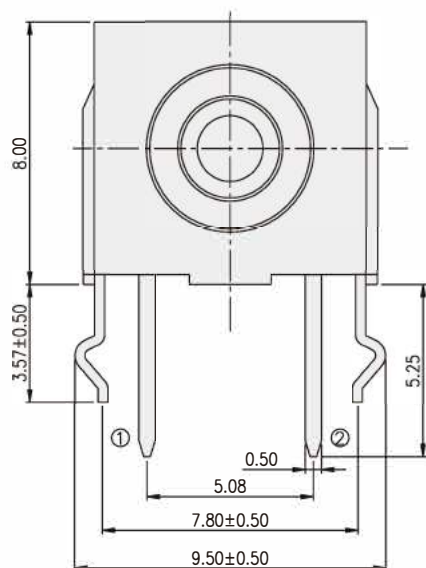


P.C.B. LAYOUT

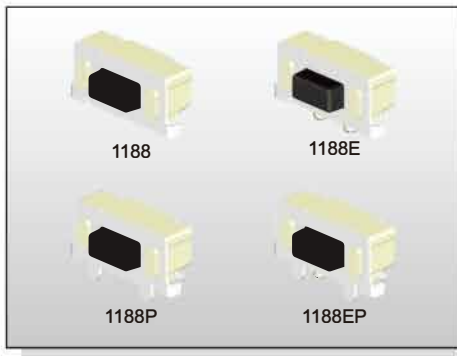
T6HA



PART NO.	H
T6HA-1	6.04
T6HA-2	6.54
T6HA-3	8.24
T6HA-5	11.34



P.C.B. LAYOUT



FEATURES

- ※Side actuated
- ※Support / Ground pins options
- ※High solder strength

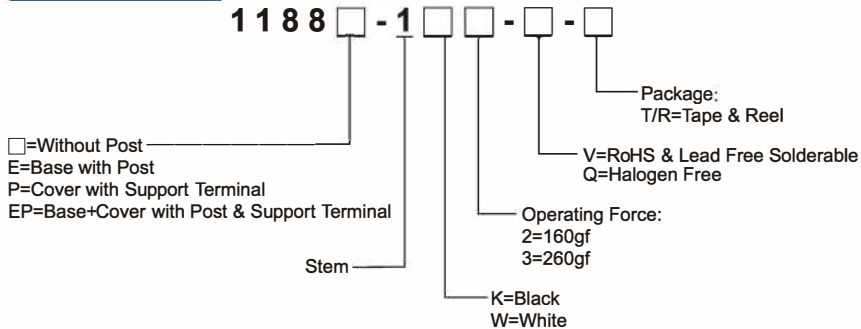
APPLICATION

- ※Audio, OA equipment
- ※Instrumentation
- ※Remote control

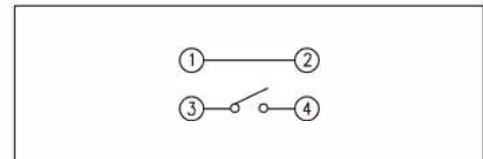
SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf/260±50gf
Travel	0.25mm
Operating Life	30,000 cycles for 260gf 50,000 cycles for 160gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-40°C ~ +80°C

HOW TO ORDER



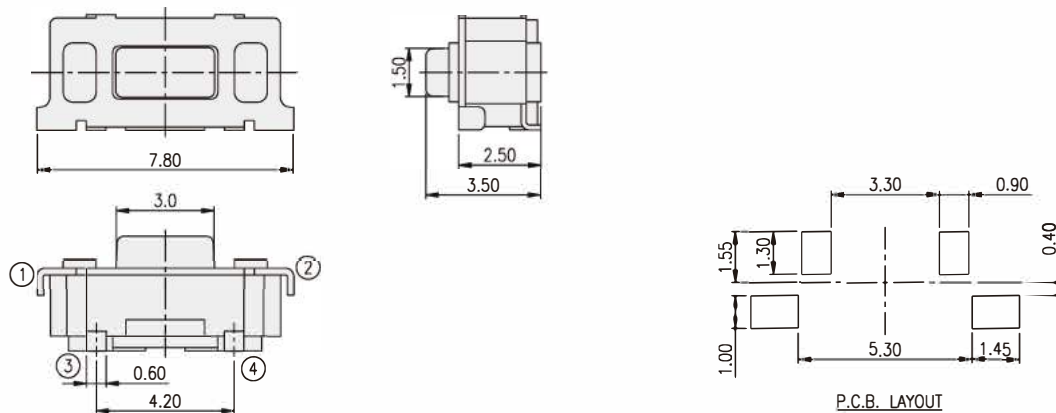
CIRCUIT



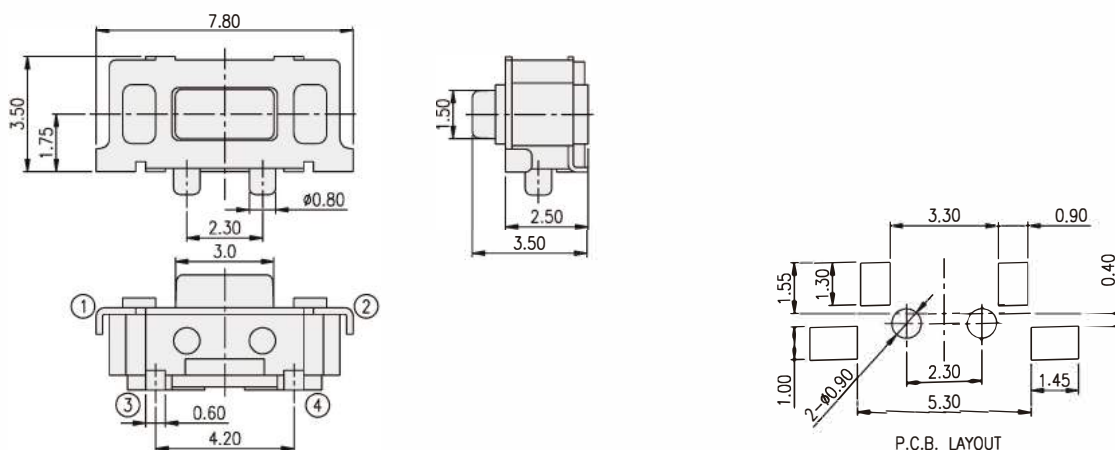
PACKAGE

<Tape & Reel>
1500 pcs

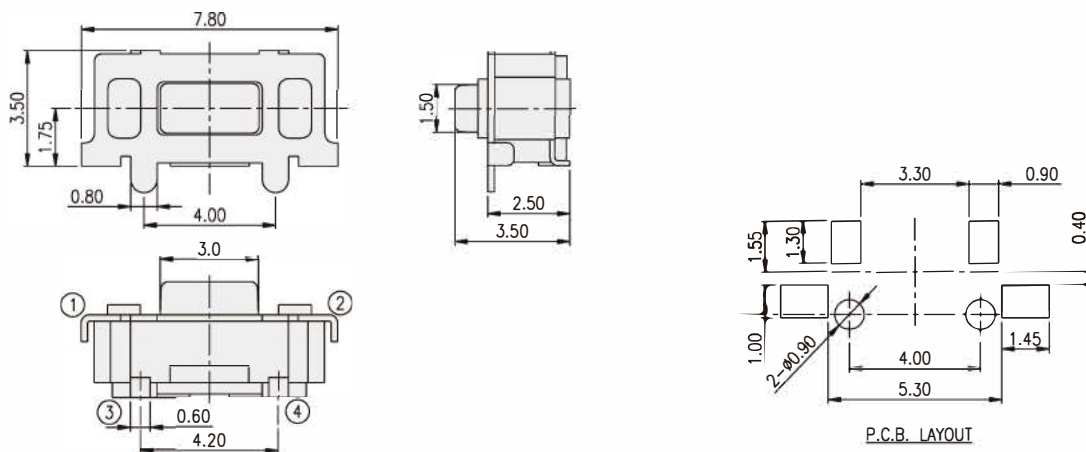
1188



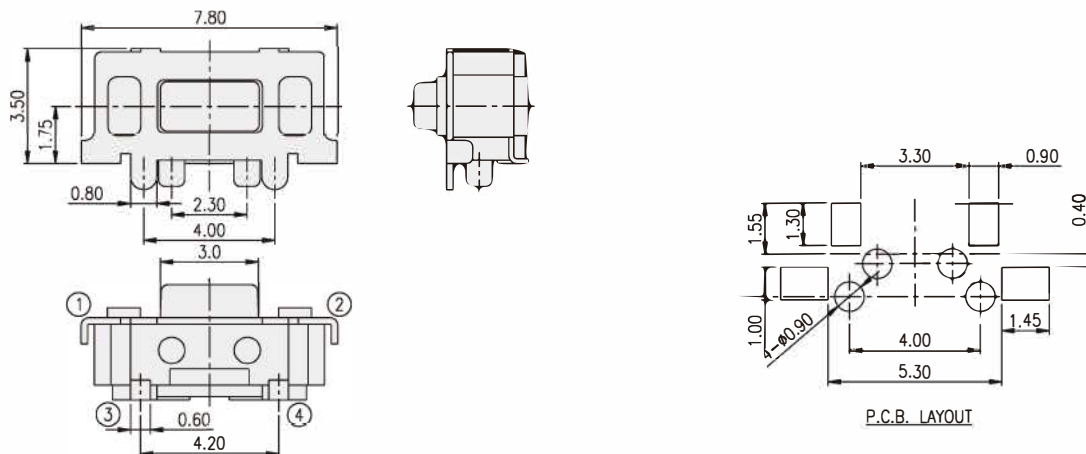
1188E

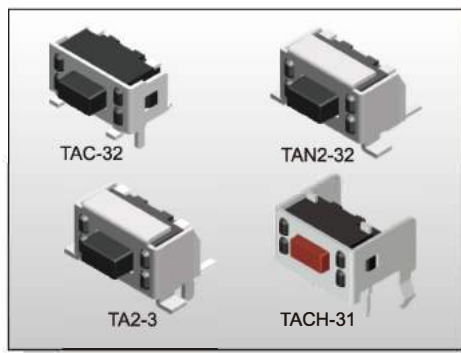


1188P



1188EP





FEATURES

- ※Side actuated
- ※Support/Ground pin option
- ※High solder strength

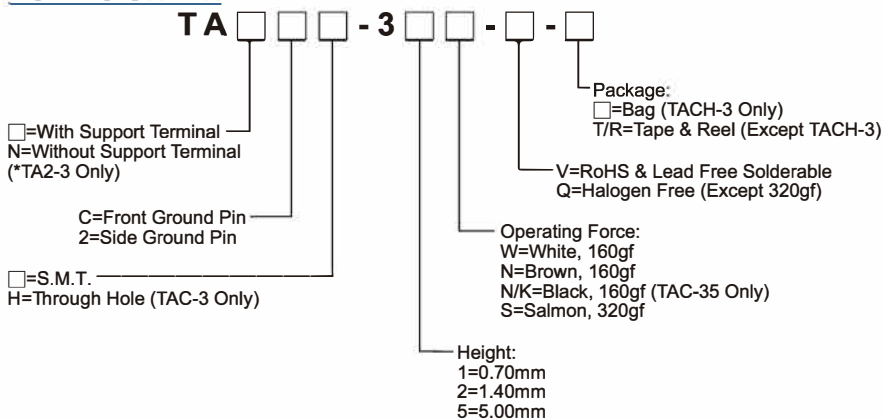
APPLICATION

- ※Data storage, Server
- ※Instrumentation
- ※Audio, OA equipment

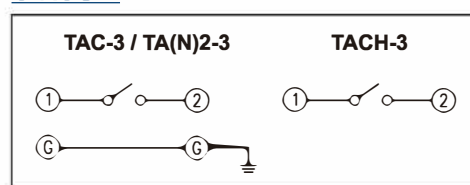
SPECIFICATION

Contact Rating	50mA, 12V DC		
Contact Resistance	100mΩ max.		
Insulation Resistance	100MΩ min. 500V DC		
Dielectric Strength	250V AC/1 minute		
Operating Force	160±50gf, 260±50gf	TAC-3	
	160±50gf, White(W)		
	160±50gf, Brown(N)	TA2-3	
	320±50gf, Salmon(S)		
Travel	0.25mm		
Operating Life	50,000 cycles		
Operating Temp.	-25°C ~ +70°C		
Storage Temp.	-40°C ~ +80°C		

HOW TO ORDER



CIRCUIT

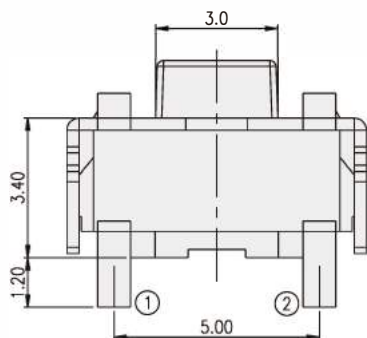
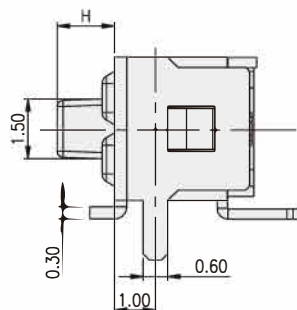
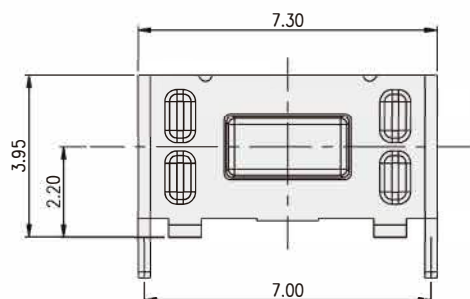


PACKAGE

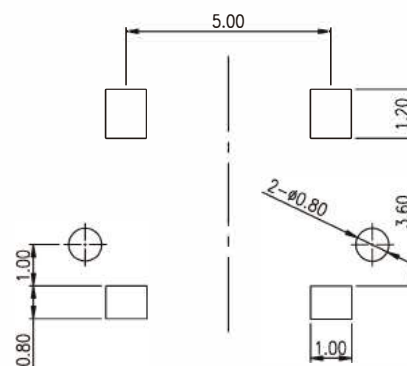
<Bag>
500 pcs(TACH-3 Only)

<Tape & Reel>
900 pcs

TAC-3

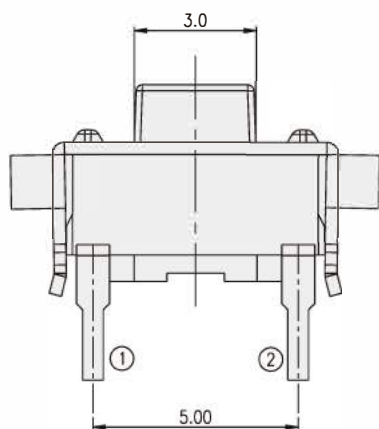
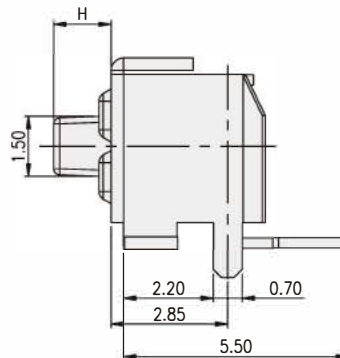
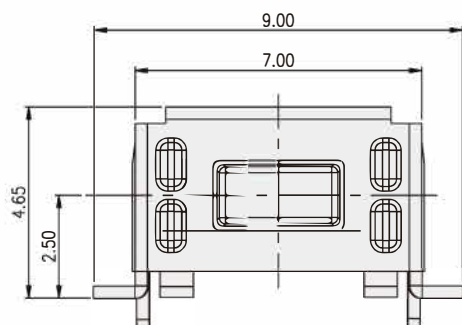


PART NO.	H
TAC-31	0.70
TAC-32	1.40
TAC-35	5.00

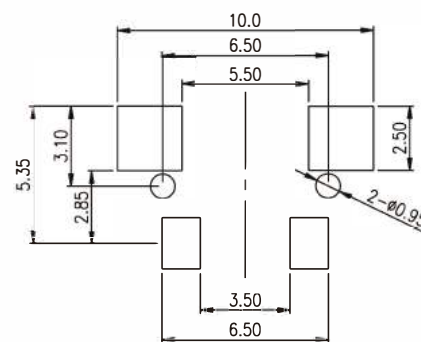


P.C.B. LAYOUT

TA2-3

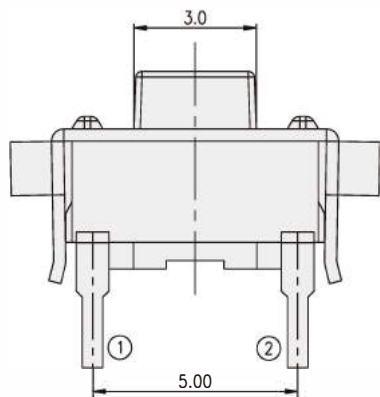
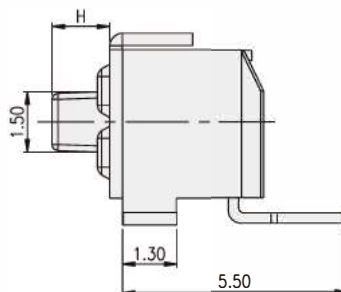
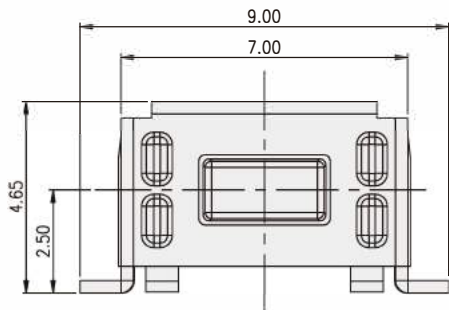


PART NO.	H
TA2-31	0.70
TA2-32	1.40
TA2-35	5.00

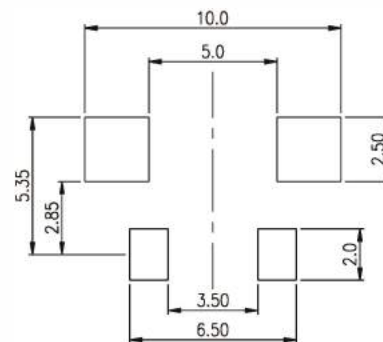


P.C.B. LAYOUT

TAN2-3

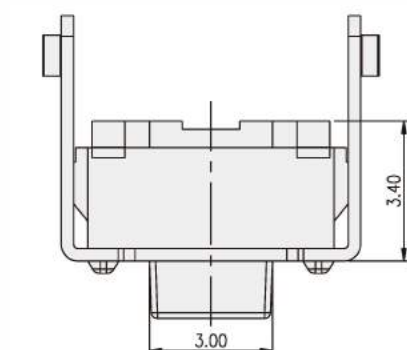


PART NO.	H
TAN2-31	0.70
TAN2-32	1.40
TAN2-35	5.00

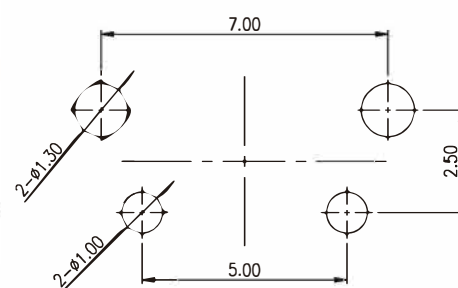
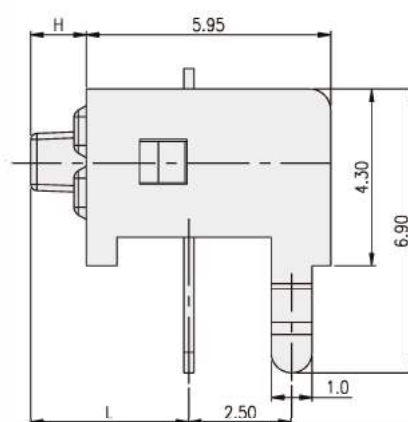
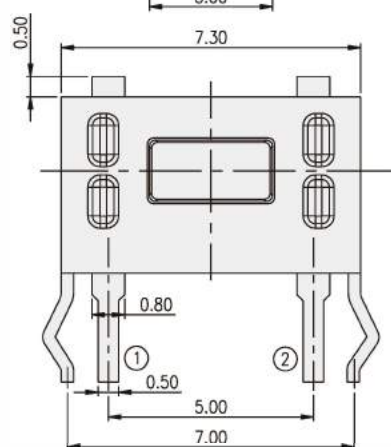


P.C.B. LAYOUT

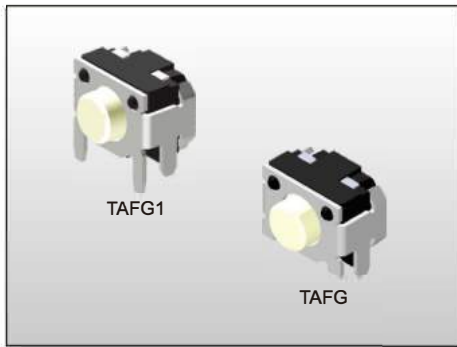
TACH-3



PART NO.	H	L
TACH-31	0.70	3.15
TACH-32	1.40	3.85
TACH-35	5.00	7.45



P.C.B. LAYOUT



FEATURES

- ※Miniature 3.3x4.5mm side push type
- ※High solder strength
- ※Sharp click feeling

APPLICATION

- ※Smart phone
- ※Tablet
- ※Portable personal audio

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	500mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf/250±50gf
Travel	0.2mm
Operating Life	100,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER

T A F ☐ - 1 ☐ **W Q R**

☐=Cover Without Post
G=Cover With Post
G1=Cover With Post & Ground Pin

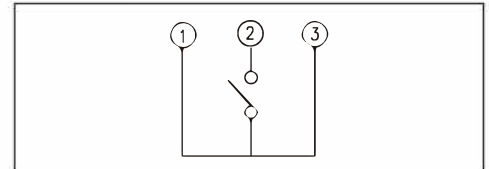
Package:
Tape & Reel

Halogen Free

2=160gf
3=250gf

Stem Color:
W=White

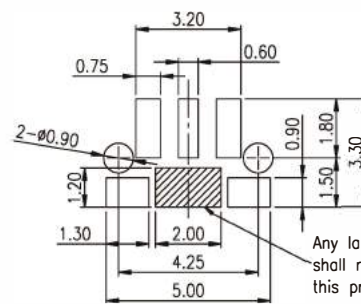
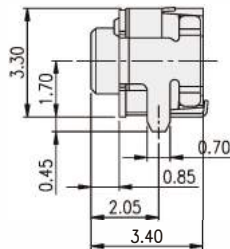
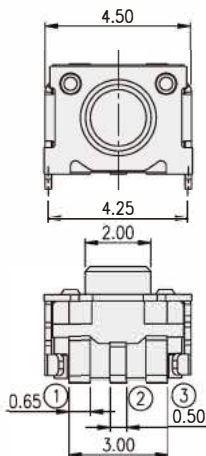
CIRCUIT



PACKAGE

<Tape & Reel>
1800 pcs

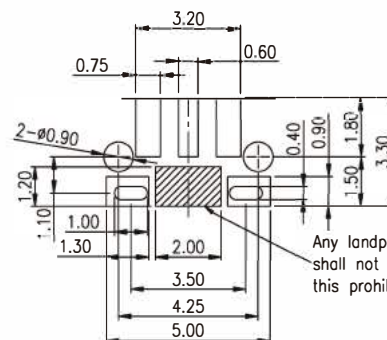
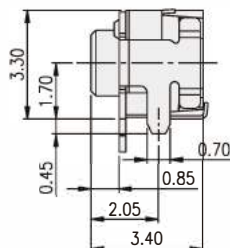
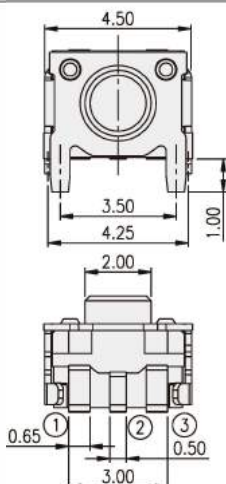
TAFG



P.C.B. LAYOUT

Any landpattern or vias shall not be provided at this prohibited area.

TAFG1



P.C.B. LAYOUT

Any landpattern or vias shall not be provided at this prohibited area.



MTA2-WNC

FEATURES

- ※ Compact-sized 1.9x4.5mm
- ※ Side actuated
- ※ Sealed with dust proof structure

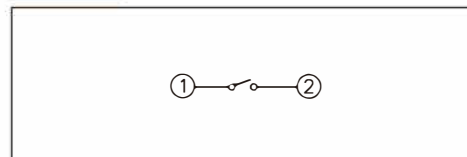
APPLICATION

- ※ Smart phone
- ※ Digital camera, Medical
- ※ Portable electronic device

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	180±50gf
Travel	0.20mm
Operating Life	100,000 cycles
Operating Temp.	-30°C ~ +80°C
Storage Temp.	-40°C ~ +90°C

CIRCUIT

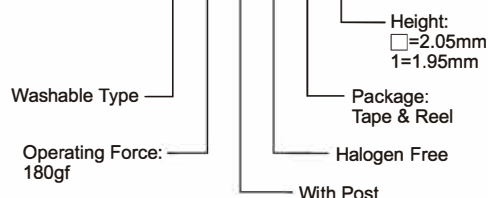


PACKAGE

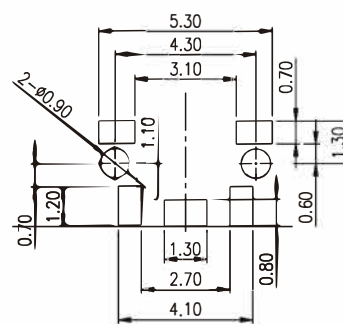
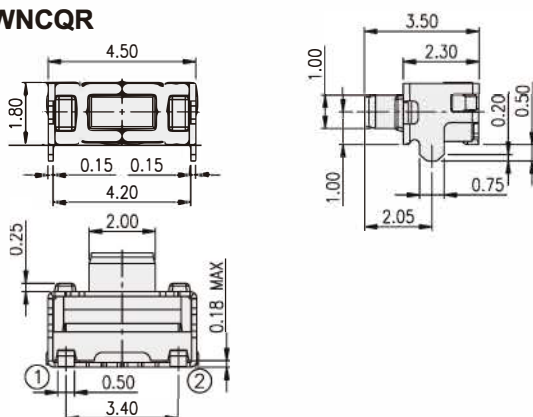
<Tape & Reel>
3000 pcs

HOW TO ORDER

MTA2 - WNCQR □

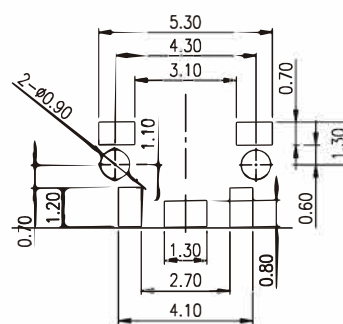
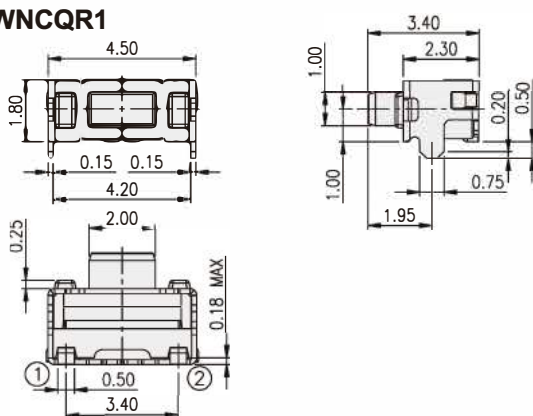


MTA2-WNCQR

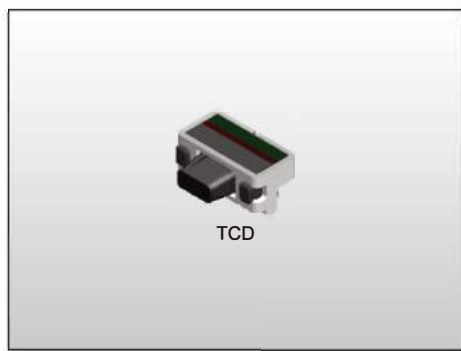


P.C.B. LAYOUT

MTA2-WNCQR1



P.C.B. LAYOUT



TCD

FEATURES

- ※ Compact-sized
- ※ Side actuated
- ※ Sealed with dust proof
- ※ PCB-base structure

APPLICATION

- ※ Smart phone
- ※ Digital Camera, Medical
- ※ Portable electronic device

SPECIFICATION

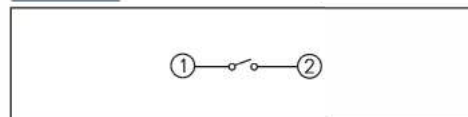
Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf
Travel	0.2mm
Operating Life	100,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER

T C D - C 2 K Q R

Cover With Post
Operating Force: 160gf
Package: Tape & Reel
Halogen Free
Color Of Stem: Black

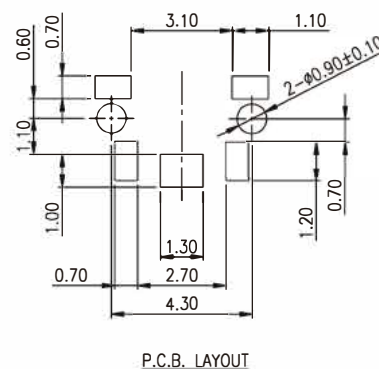
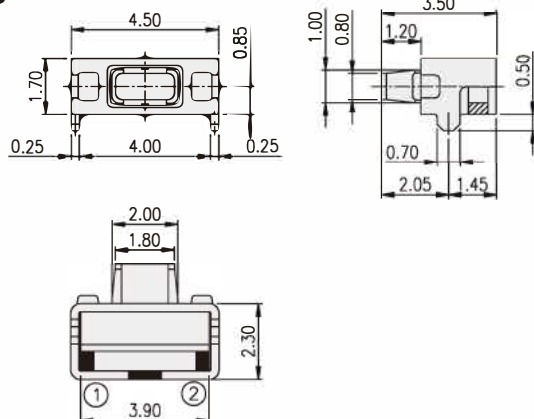
CIRCUIT



PACKAGE

<Tape & Reel>
3000 pcs

TCD





TCK

FEATURES

- ※Side-operational type
- ※PCB-base structure
- ※Sealed with dust proof

APPLICATION

- ※Smart phone
- ※Portable devices

SPECIFICATION

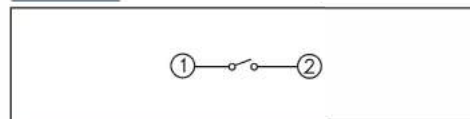
Contact Rating	20mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf
Travel	0.2mm
Operating Life	200,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER

TCK2QR

Operating Force: 160gf
Package: Tape & Reel
Halogen Free

CIRCUIT

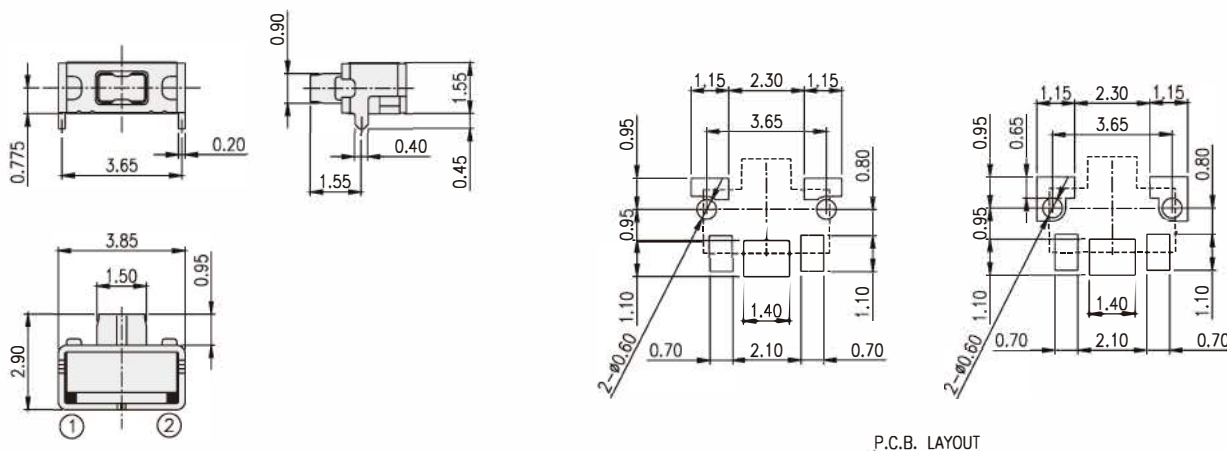


PACKAGE

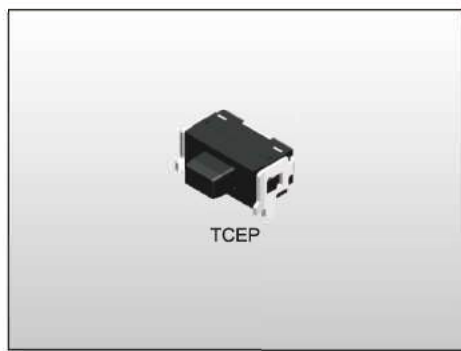
<Tape & Reel>
3000 pcs

TACT SWITCH

TCK



P.C.B. LAYOUT



FEATURES

- ※1.65mm above PCB
- ※High solder strength

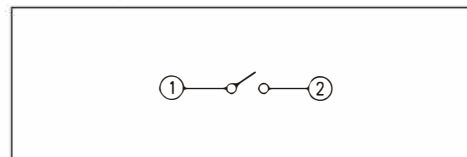
APPLICATION

- ※Personal audio
- ※Mobile phone
- ※Audio, OA equipment

SPECIFICATION

Contact Rating	20mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf
Travel	0.2mm
Operating Life	100,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +90°C

CIRCUIT

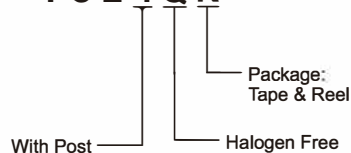


PACKAGE

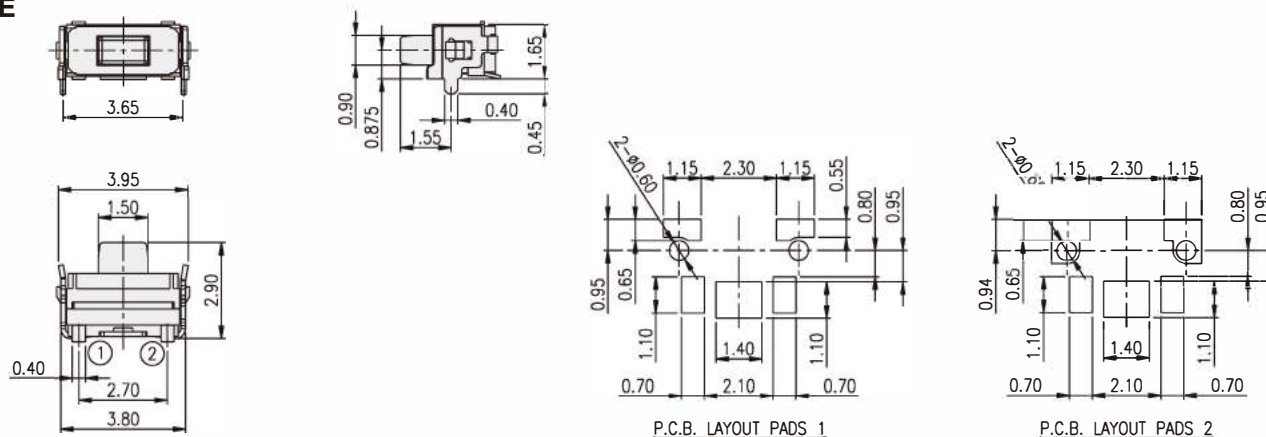
<Tape & Reel>
3000 pcs

HOW TO ORDER

T C E P Q R



TCE





T1C

FEATURES

- ※Miniature 2.8*1.95mm
- ※Side push mid-mount type
- ※300,000 operating life cycles
- ※Better soldering peeling strength
- ※Height from surface of PCB:0.975mm

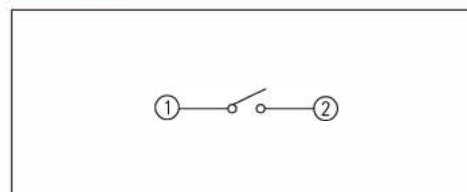
APPLICATION

- ※Smart phone
- ※Medical
- ※Portable electronic device
- ※3C products

SPECIFICATION

Contact Rating	10uA, 2V DC to 20mA, 15V DC
Contact Resistance	500mΩ max.
Insulation Resistance	50MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf
Travel	0.13mm
Operating Life	300,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

<Tape & Reel>
6000 pcs

HOW TO ORDER

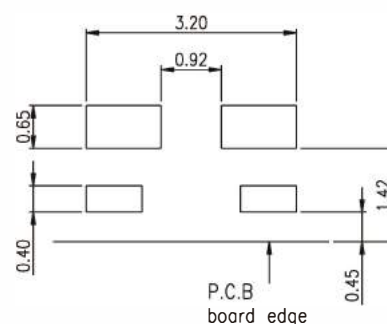
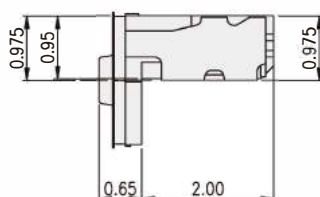
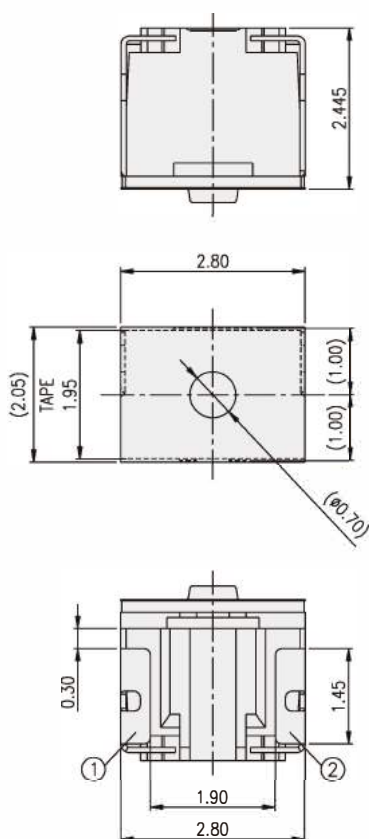
T 1 C □ Q R

Package:
Tape & Reel

Halogen Free

Operating Force:
2=160gf

T1C



P.C.B. LAYOUT



TCF

FEATURES

- ※Miniature 2.9x4.5mm
- ※Side push mid-mount type
- ※200,000 operating life cycles

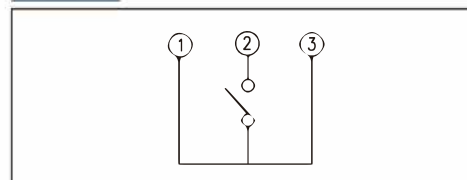
APPLICATION

- ※Smart phone
- ※Portable personal audio
- ※Digital camera

SPECIFICATION

Contact Rating	10μA, 2V DC to 20mA, 15V DC
Contact Resistance	1000mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf/240±70gf
Travel	0.15mm
Operating Life	200,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

<Tape & Reel>
2400 pcs

HOW TO ORDER

T C F ☐ ☐ **Q R**

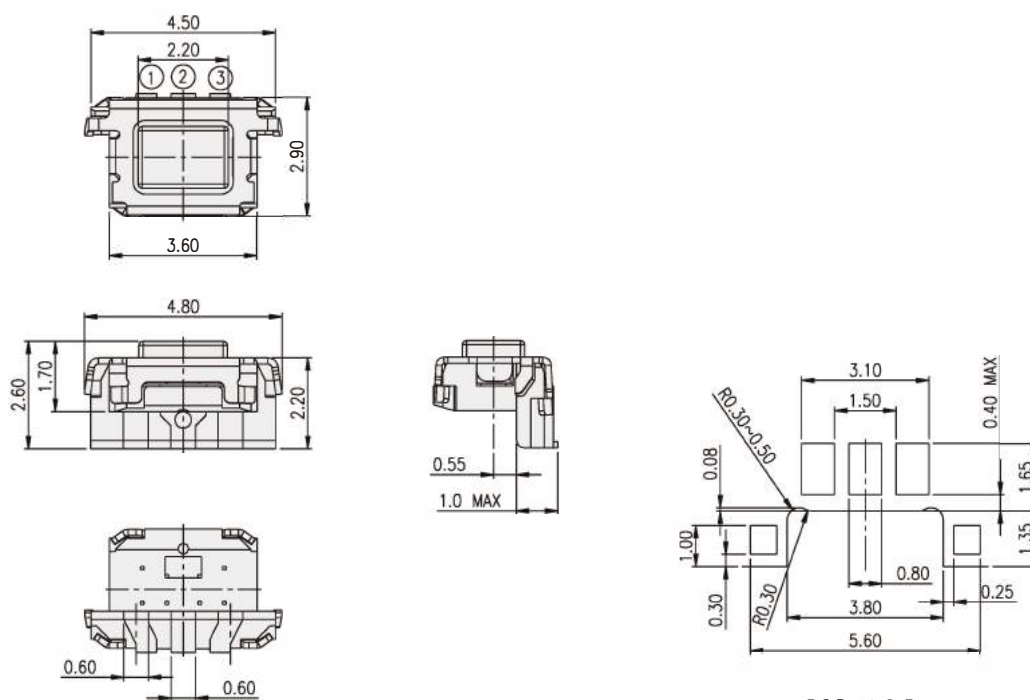
☐=Without Post
C=With Post

Package:
Tape & Reel

Halogen Free

Operating Force:
2=160gf
3=240gf

TCF



P.C.B. LAYOUT



TCH

FEATURES

- ※Miniature 4.5*2.2mm
- ※Side push mid-mount type
- ※600,000 operating life cycles

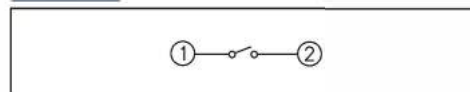
APPLICATION

- ※Smart phone
- ※Portable personal audio
- ※Digital camera
- ※3C products

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	500mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	160±50gf/220±50gf/250±80gf
Travel	0.15mm
Operating Life	600,000 cycles
Operating Temp.	-30°C ~ +85°C
Storage Temp.	-40°C ~ +90°C

CIRCUIT



PACKAGE

<Tape & Reel>
3000 pcs

HOW TO ORDER

TCH □ □ QR

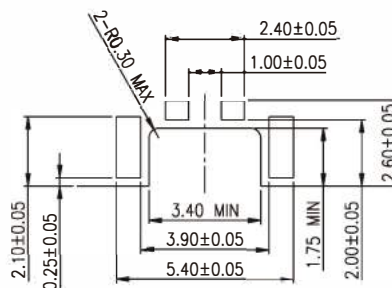
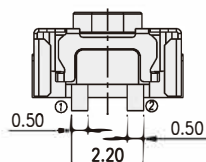
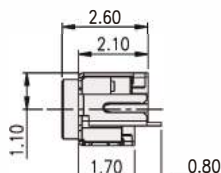
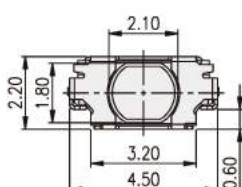
Package:
Tape & Reel

Halogen Free

□=Without Post
C=With Post

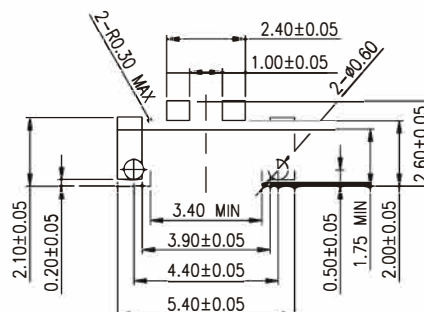
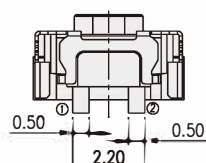
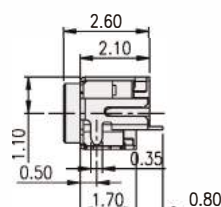
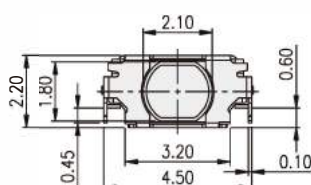
Operating Force:
2=160gf
3=220gf
5=250gf

TCH



P.C.B. LAYOUT

TCHC



P.C.B. LAYOUT



T6L

FEATURES

- ※Miniature 5.9*6.0mm
- ※Long Travel type
- ※100,000 operating life cycles

APPLICATION

- ※Automotive
- ※Instrumentation
- ※Audio

SPECIFICATION

Contact Rating	10uA, 1V DC to 50mA, 16V DC
Contact Resistance	100mΩ max. 500V DC
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf/200±60gf 250±80gf/300±80gf
Travel	1.3mm
Operating Life	100,000 cycles (160gf/200gf/250gf/300gf)
Operating Temp.	-40°C ~ +90°C
Storage Temp.	-40°C ~ +90°C

HOW TO ORDER

T 6 L - □ K Q R

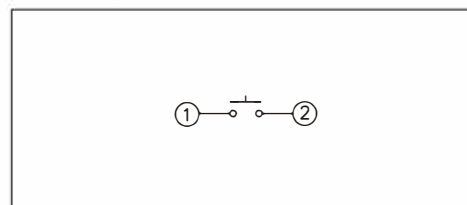
Operating Force:
2=160±50gf
3=200±60gf
4=250±80gf
5=300±80gf

Package:
Tape & Reel

Halogen Free

Button Color:
Black

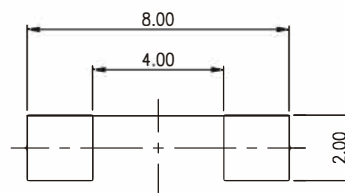
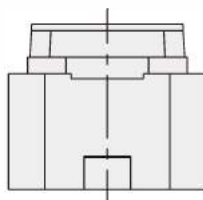
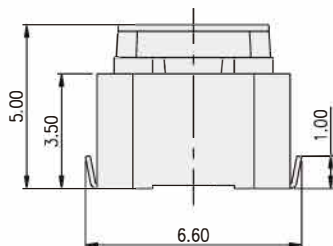
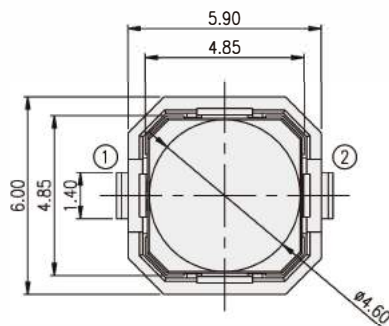
CIRCUIT



PACKAGE

<Tape & Reel>
1200 pcs

T6L



P.C.B. LAYOUT



LTL

FEATURES

- ※Soft actuation feeling
- ※Long travel of 1.3mm
- ※Wide stem for easy operating

APPLICATION

- ※Automotive
- ※Instrumentation
- ※Audio

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max. 500V DC
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	300V AC/1 minute
Operating Force	200±50gf/350±100gf
Travel	1.3mm
Operating Life	30,000 cycles (350gf) 100,000 cycles (200gf)
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER

LTL - 6 1 3 - - -

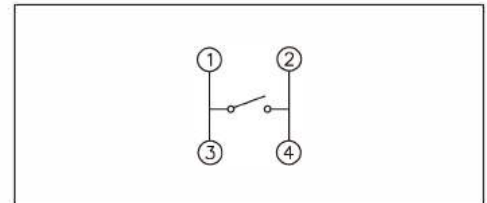
Package:
T/R=Tape & Reel

V=RoHS & Lead Free Solderable
Q=Halogen Free

Operating Force:
R=200gf
S=350gf

Travel: 1.30mm

CIRCUIT

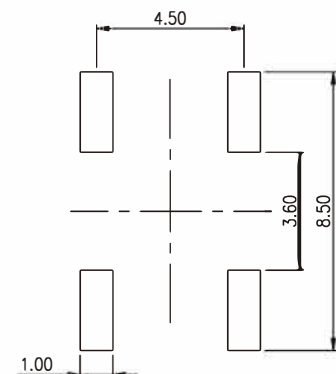
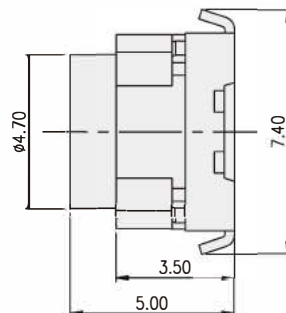
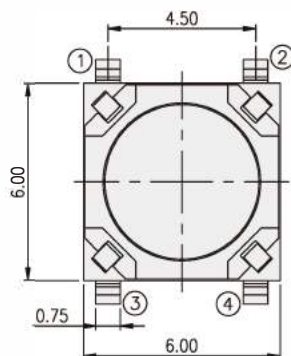


PACKAGE

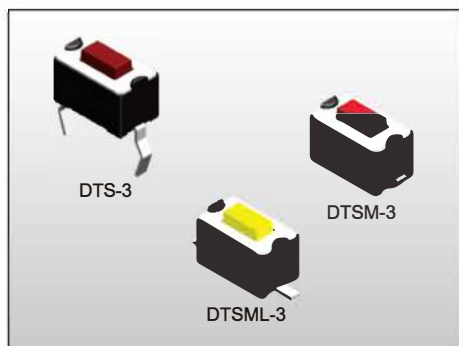
<Tape & Reel>
900 pcs

TACT SWITCH

LTL-6



P.C.B. LAYOUT



FEATURES

- ※ Compact size 3.5x6 mm
- ※ Sharp click feeling
- ※ Choice of SMT terminal type

APPLICATION

- ※ Audio, OA equipment
- ※ Instrumentation
- ※ Industrial

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	125±50gf, Black(K) 160±50gf, Brown(N) 260±50gf, Red(R) 320±80gf, Salmon(S) 520±130gf, Yellow(Y)
Travel	0.25mm
Operating Life	30,000 cycles for 520/320/260gf 50,000 cycles for 160/125gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER

D T S ☐ - 3 ☐ - ☐ - ☐

☐: Through Hole
M: J Bend Outward
ML: S.M.T./Flat
MF: S.M.T./Gull-wing

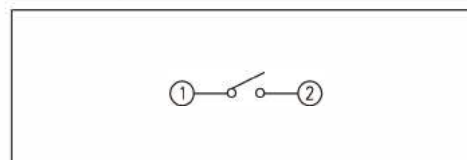
Package:
☐=Bag(Through Hole Only)
B=Tube Package(Except DTSMF-3)
T/R=Tape & Reel

V=RoHS & Lead Free Solderable
Q=Halogen Free

Dimension H:
1=4.30mm
2=5.00mm

Operating Force:
K=Black, 125gf
N=Brown, 160gf
R=Red, 260gf
S=Salmon, 320gf
Y=Yellow, 520gf >Not Available For Halogen Free

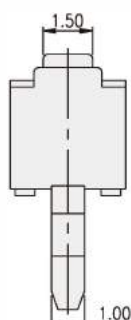
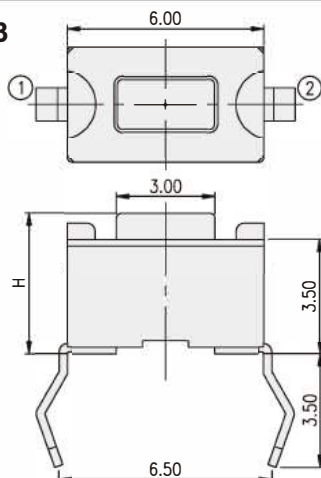
CIRCUIT



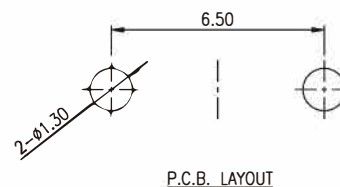
PACKAGE

<Tube>
DTS(M)(L)-3: 135 pcs
<Bulk>
1000 pcs
<Tape & Reel>
DTSM(L)(F)-31: 1800 pcs
DTSML(L)(F)-32: 1600 pcs

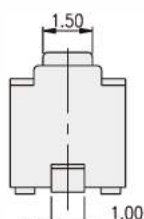
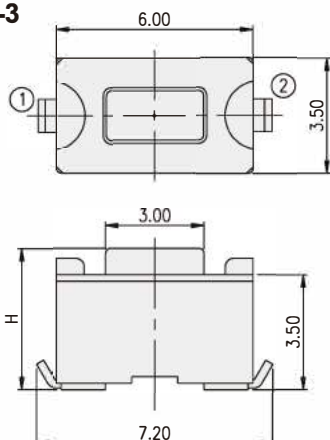
DTS-3



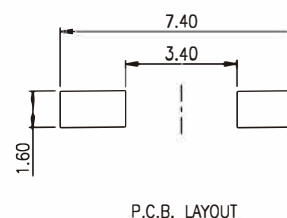
PART NO.	H
DTS-31	4.30
DTS-32	5.00



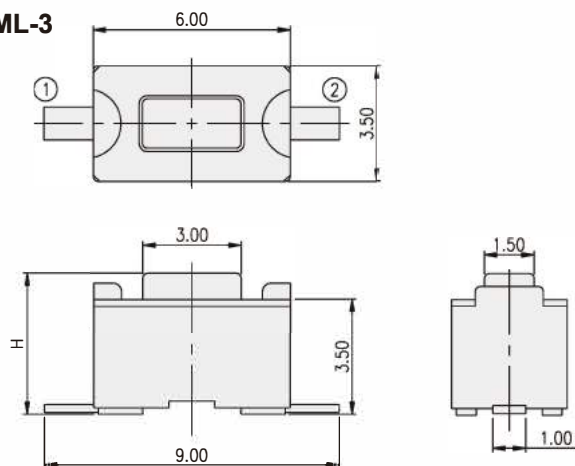
DTSM-3



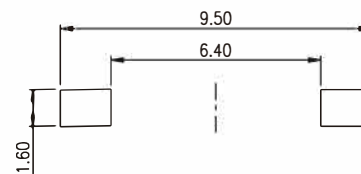
PART NO.	H
DTSM-31	4.30
DTSM-32	5.00



DTSML-3

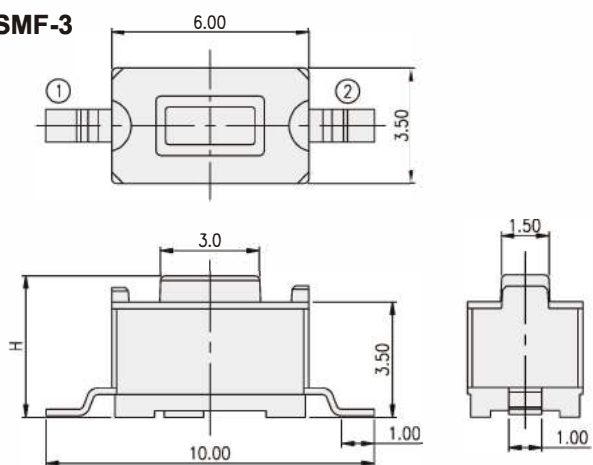


PART NO.	H
DTSML-31	4.30
DTSML-32	5.00

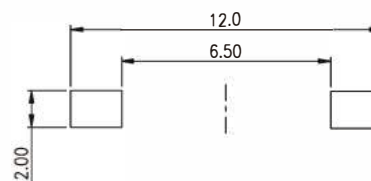


P.C.B. LAYOUT

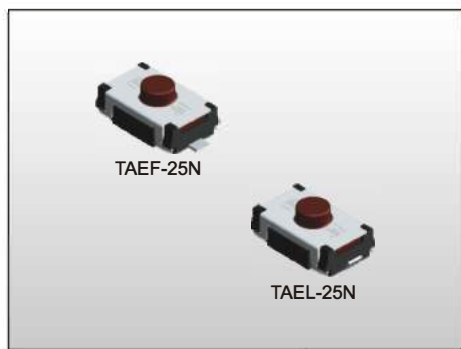
DTSMF-3



PART NO.	H
DTSMF-31	4.30
DTSMF-32	5.00



P.C.B. LAYOUT



FEATURES

- ※3.8x6mm of thinner type 2.5mm height
- ※Soft actuator with long travel
- ※Choice of actuation force

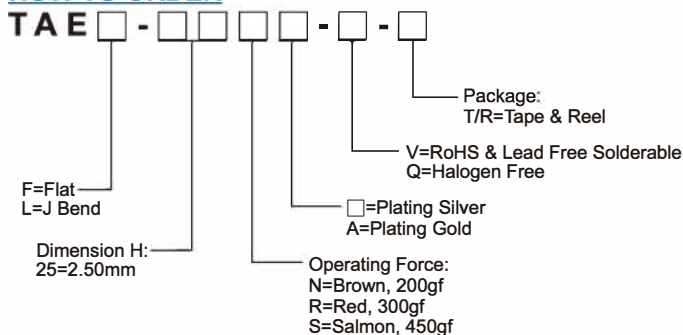
APPLICATION

- ※Car remote control
- ※Audio, OA equipment
- ※Instrumentation

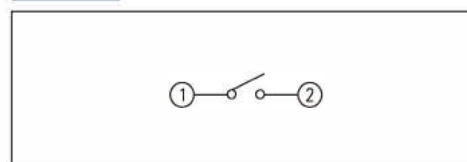
SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	300V AC/1 minute
Operating Force	200gf, Brown(N) 300gf, Red(R) 450gf, Salmon(S)
Travel	0.30mm, Brown(N) 0.35mm, Red(R) 0.45mm, Salmon(S)
Operating Life	100,000 cycles (S) 200,000 cycles (N/R)
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER



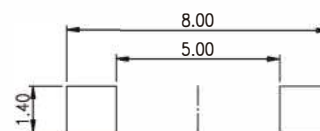
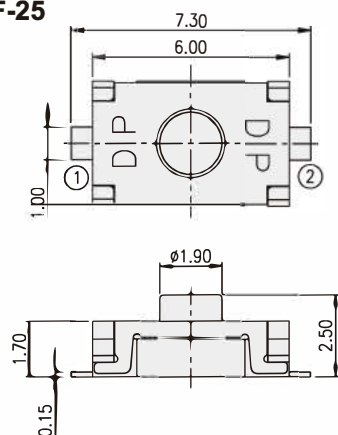
CIRCUIT



PACKAGE

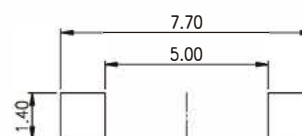
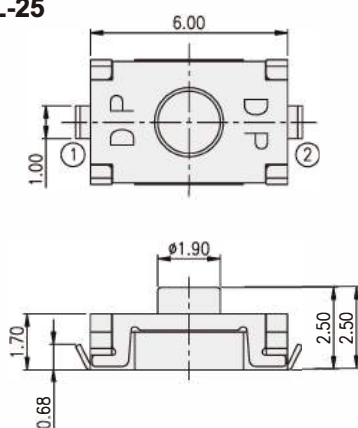
<Tape & Reel>
2700 pcs

TAEF-25

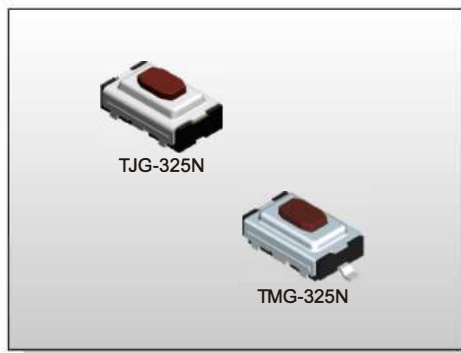


P.C.B. LAYOUT

TAEI-25



P.C.B. LAYOUT



FEATURES

- ※ Thinner type 2.5mm height
- ※ High density mounting
- ※ With anti-ESD of ground terminal

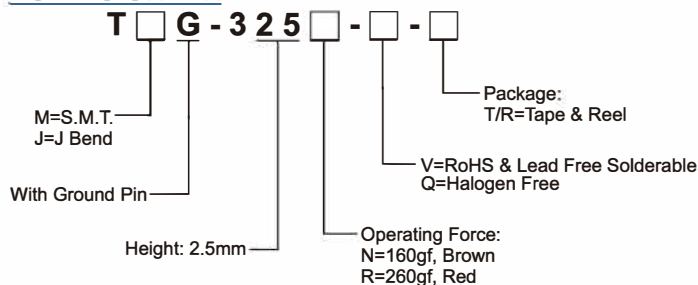
APPLICATION

- ※ Consumer products
- ※ Instrumentation
- ※ Industrial

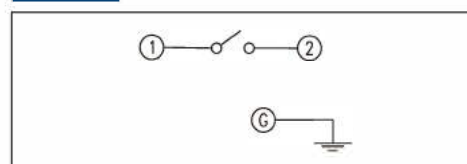
SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	300V AC/1 minute
Operating Force	160±50gf, Brown(N) 260±50gf, Red(R)
Travel	0.25mm
Operating Life	20,000 cycles for 260gf 50,000 cycles for 160gf
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER



CIRCUIT

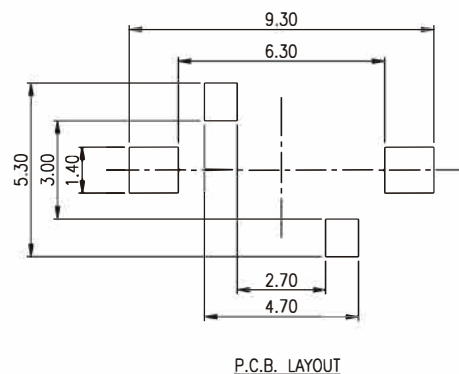
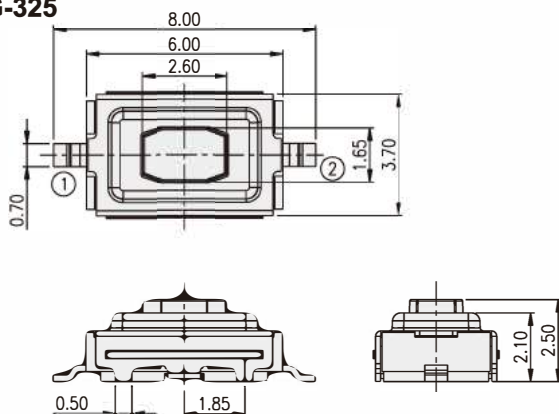


PACKAGE

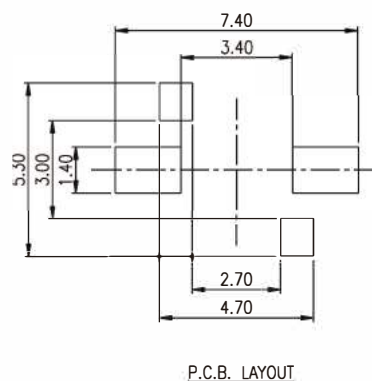
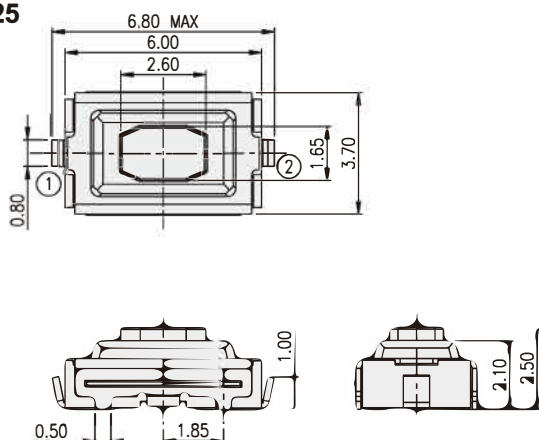
<Tape & Reel>
2800 pcs

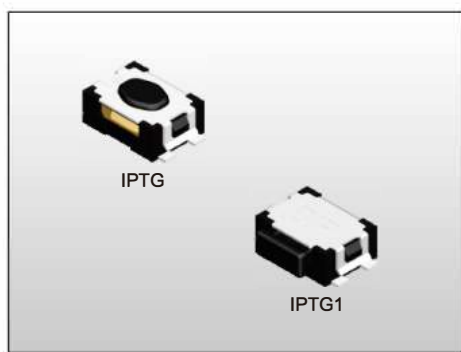
TACT SWITCH

TMG-325



TJG-325





FEATURES

- ※Compact-sized 2.8x3.8mm
- ※Vertical or side actuation
- ※Wide stem

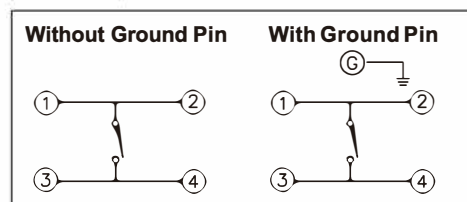
APPLICATION

- ※Automotive
- ※Portable electronic device
- ※Control panel

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	100V AC/1 minute
Operating Force	100±50gf, 160±50gf (Vertical Push) 200±65gf (Side Push) 300±80gf, 400±80gf (Vertical Push)
Travel	0.13mm (Vertical Push) 0.20mm (Side Push)
Operating Life	50,000 cycles for 300/400gf 100,000 cycles for 100/160/200gf
Operating Temp.	-20°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

CIRCUIT

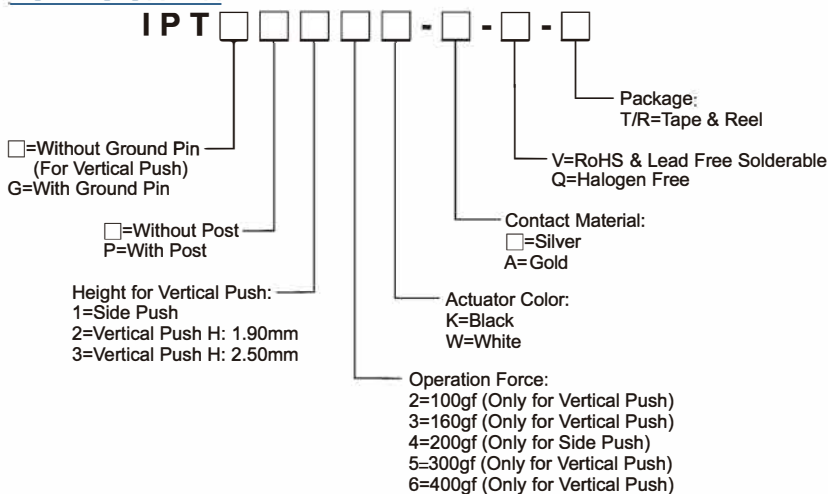


PACKAGE

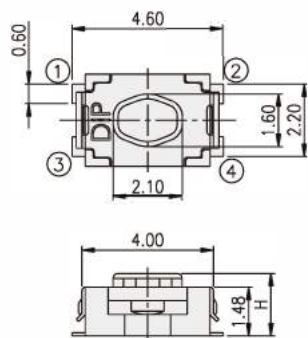
<Tape & Reel>

IPTG1: 3000 pcs
 IPTG1: 3500 pcs
 IPTG2: 7000 pcs
 IPTG3: 6000 pcs

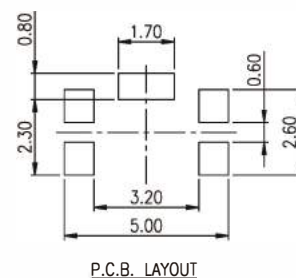
HOW TO ORDER



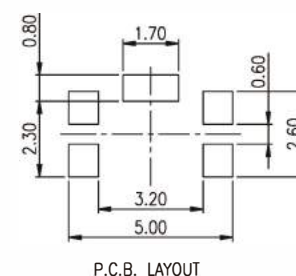
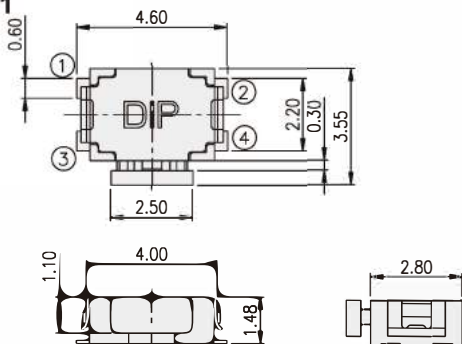
IPTG

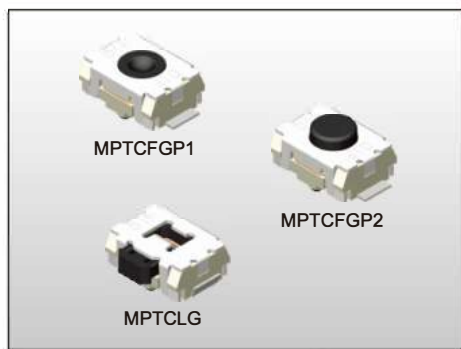


PART NO.	H
IPTG2	1.90
IPTG3	2.50



IPTG1





FEATURES

- ※ Compact-sized 2.9x3.9mm
- ※ Vertical or side actuation
- ※ Reflow solderable

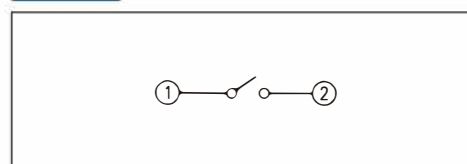
APPLICATION

- ※ Automotive
- ※ Portable electronic device
- ※ Control panel

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	160±50gf (Vertical Push) 220±65gf (Side Push)
Travel	0.13mm (Vertical Push) 0.20mm (Side Push)
Operating Life	100,000 cycles
Operating Temp.	-20°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

CIRCUIT

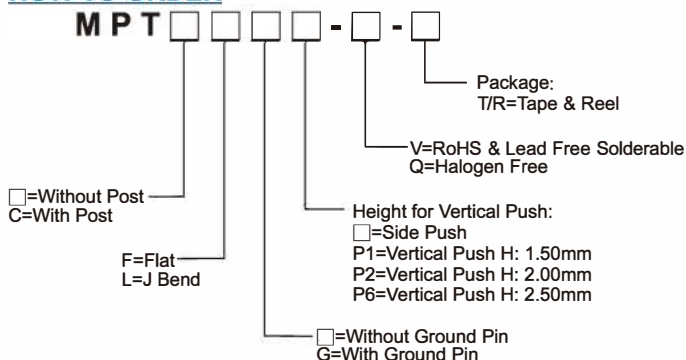


PACKAGE

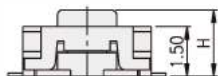
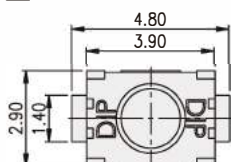
<Tape & Reel>

Side push: 3500 pcs
Vertical push: 2000 pcs

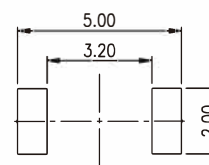
HOW TO ORDER



MPTFP []

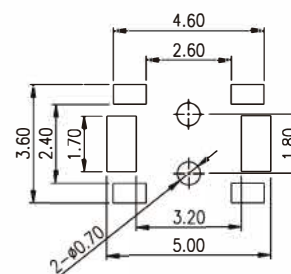
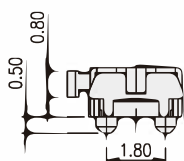
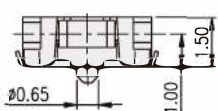
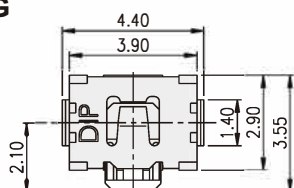


PART NO.	H
MPTFP1	1.50
MPTFP2	2.00
MPTFP6	2.50

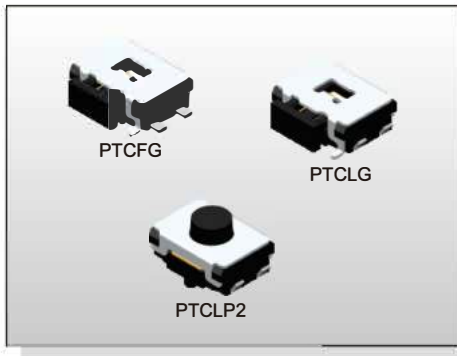


P.C.B. LAYOUT

MPTCLG



P.C.B. LAYOUT



FEATURES

- ※For high density mounting
- ※Vertical or side actuation
- ※Reflow solderable

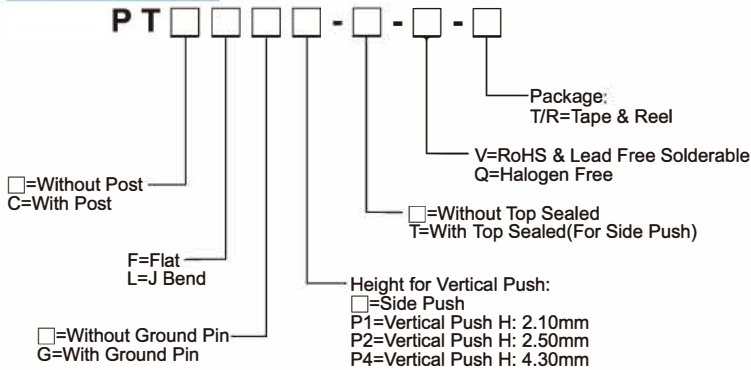
APPLICATION

- ※Automotive
- ※Portable electronic device
- ※Control panel

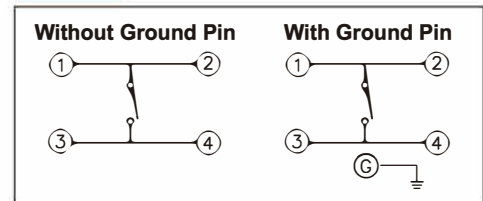
SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf (Vertical Push) 220+80/-70gf (Side Push)
Travel	0.20mm (Vertical Push) 0.30mm (Side Push)
Operating Life	100,000 cycles
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER



CIRCUIT

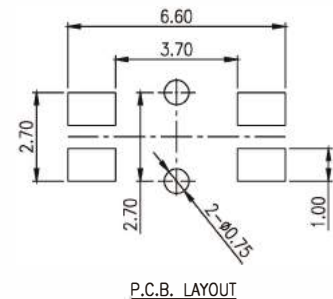
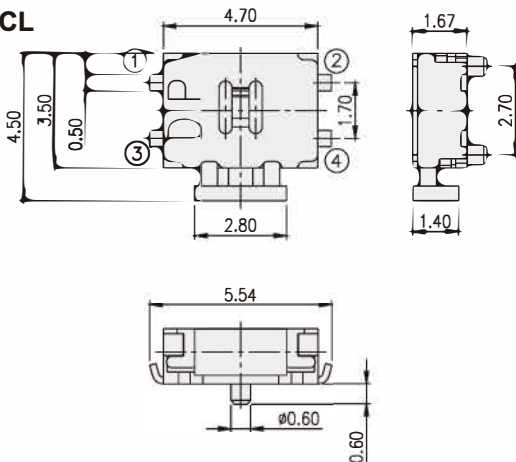


PACKAGE

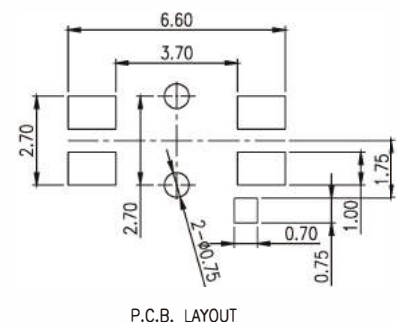
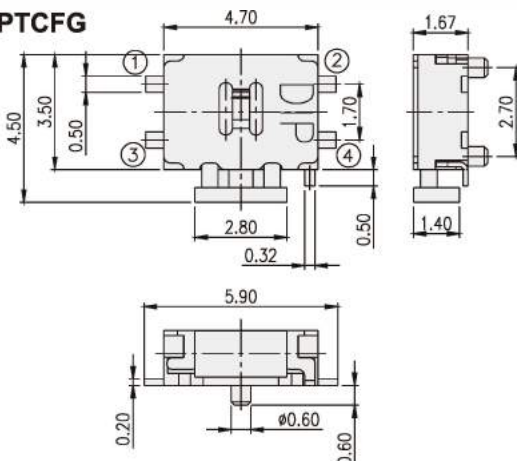
<Tape & Reel>

Side push: 3000 pcs
Vertical push: 2400 pcs

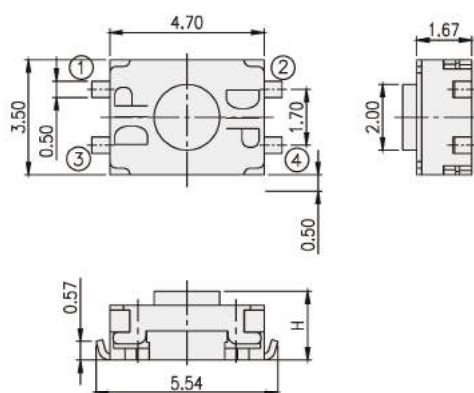
PTCL



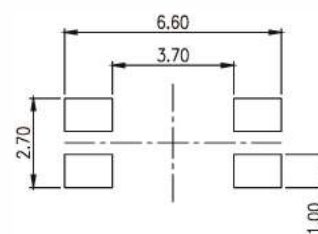
PTCFG



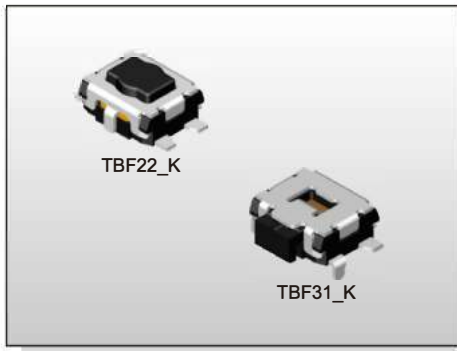
PTLGP □



PART NO.	H
PTLP1	2.10
PTLP2	2.50
PTLP4	4.30



P.C.B. LAYOUT



FEATURES

- ※Miniature 2.9x3.5mm
- ※Vertical or side actuation
- ※Long operating life

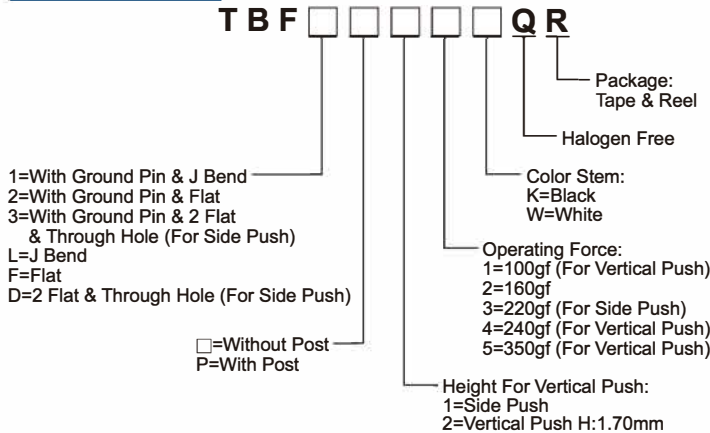
APPLICATION

- ※Mobile phone
- ※Consumer electronics
- ※Automotive

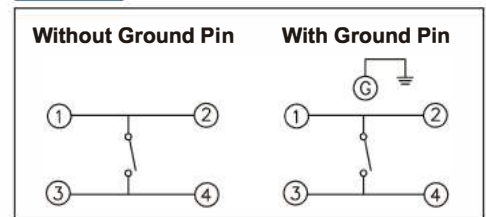
SPECIFICATION

Contact Rating	10μA, 2V DC to 20mA, 15V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	100±50/160±50/240±80/350±100gf (Vertical Push) 160+70/-40, 220+80/-70gf (Side Push)
Travel	0.15mm (Vertical Push) 0.20mm (Side Push)
Operating Life	100,000 cycles for Side Push 200,000 cycles for 160/240/350gf 1,000,000 cycles for 100gf (Vertical Push)
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER



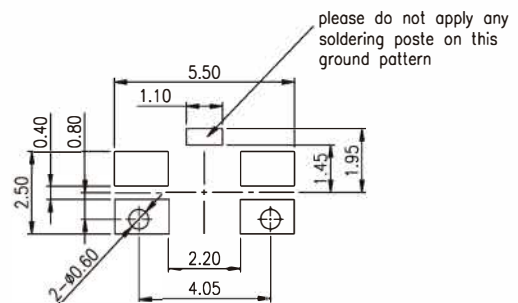
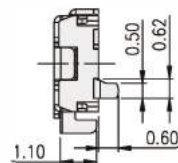
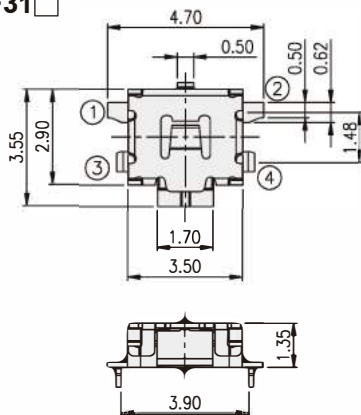
CIRCUIT



PACKAGE

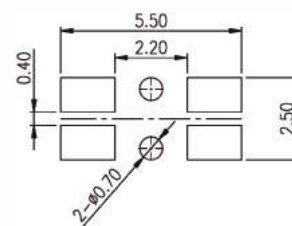
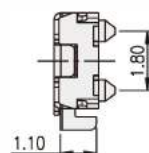
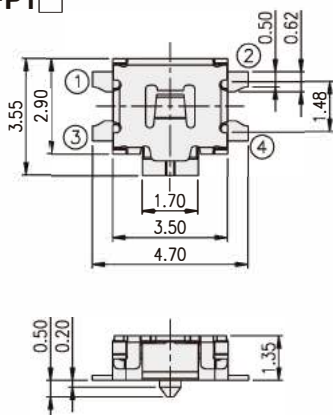
<Tape & Reel>
3000 pcs

TBF31 ☐



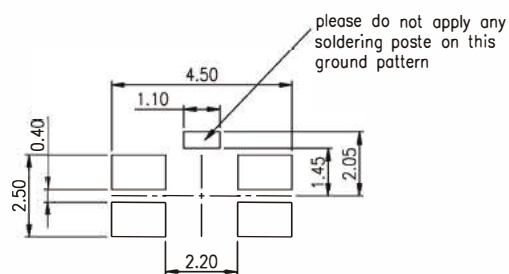
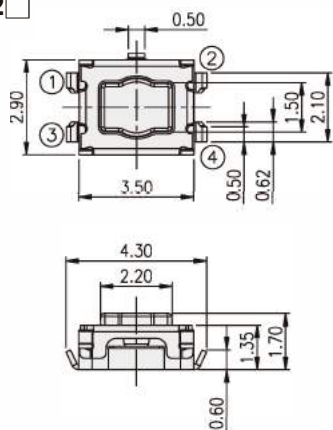
P.C.B. LAYOUT

TBFFP1 ☐



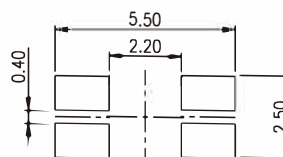
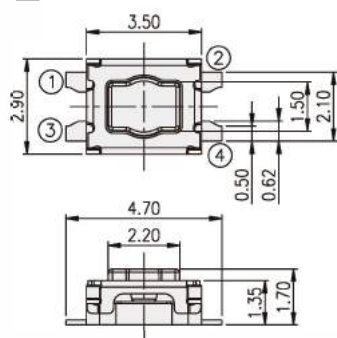
P.C.B. LAYOUT

TBF12 □

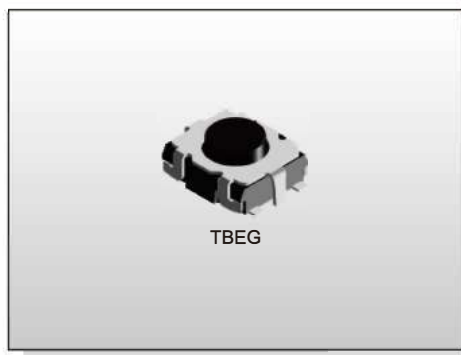


P.C.B. LAYOUT

TBFF2 □



P.C.B. LAYOUT



FEATURES

- ※Electrical life: 200,000 cycles
- ※Sharp click feeling
- ※2.7x3.0mm miniature tact switch

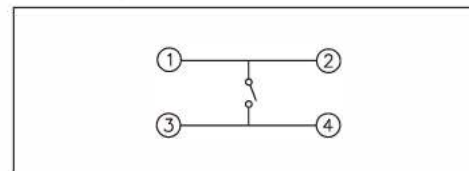
APPLICATION

- ※Automotive
- ※Video game device

SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf/200±50gf/400±80gf
Travel	0.12mm
Operating Life	200,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +90°C

CIRCUIT



PACKAGE

<Tape & Reel>
8000 pcs

HOW TO ORDER

T B E - ☐ - ☐ - **Q** - ☐

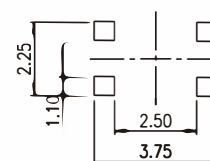
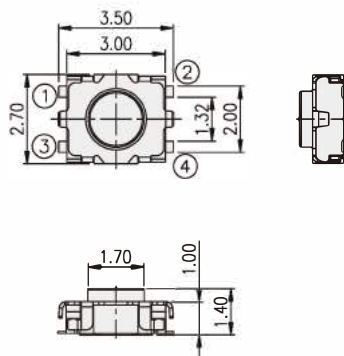
G=With Ground Pin
□=Without Ground Pin

Package:
T/R=Tape & Reel

Halogen Free

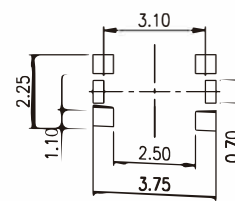
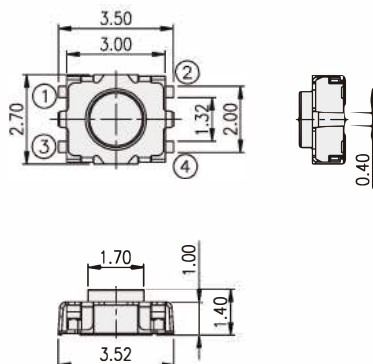
Operating Force:
N=Brown, 160gf
W=White, 200gf
□=Black, 400gf

TBE



P.C.B. LAYOUT

TBEG



P.C.B. LAYOUT



FEATURES

- ※Electrical life: 100,000 cycles
- ※3.2x4.0mm miniature tact switch

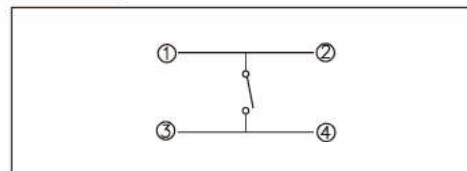
APPLICATION

- ※Control panel
- ※Remote controls
- ※Keyless entry devices

SPECIFICATION

Contact Rating	10μA, 1V DC to 50mA, 16V DC
Contact Resistance	500mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160±50gf/260±80gf/400±100gf
Travel	0.12mm
Operating Life	100,000 cycles
Operating Temp.	-30°C ~ +85°C
Storage Temp.	-30°C ~ +85°C

CIRCUIT



PACKAGE

<Tape & Reel>
3000 pcs

HOW TO ORDER

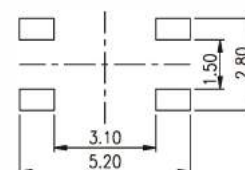
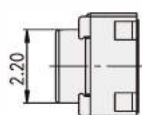
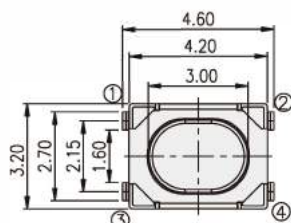
TAH **QR**

Operating Force:
1=160gf (Brown)
2=260gf (White)
3=400gf (Black)

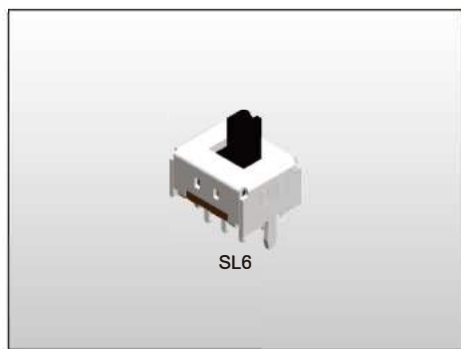
Package:
Tape & Reel

Halogen Free

TAH



P.C.B. LAYOUT



FEATURES

- ※4.7mm height
- ※10,000 operating life cycles

APPLICATION

- ※Portable audio
- ※Instrumentation
- ※Radio cassette

SPECIFICATION

Contact Rating	0.1A, 12V DC
Contact Resistance	20mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	200±150gf
Travel	2mm
Operating Life	10,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-20°C ~ +60°C

HOW TO ORDER

S L 6 N C H V R

Poles-Positions:
2P2T

Timing:
Non-Shorting

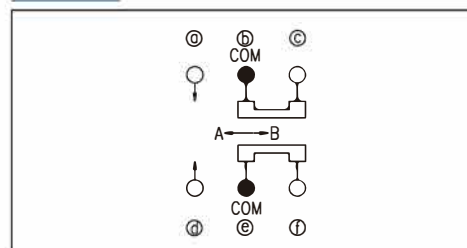
Package:
Tape & Reel

RoHS & Lead Free Solderable

Through Hole

With Post

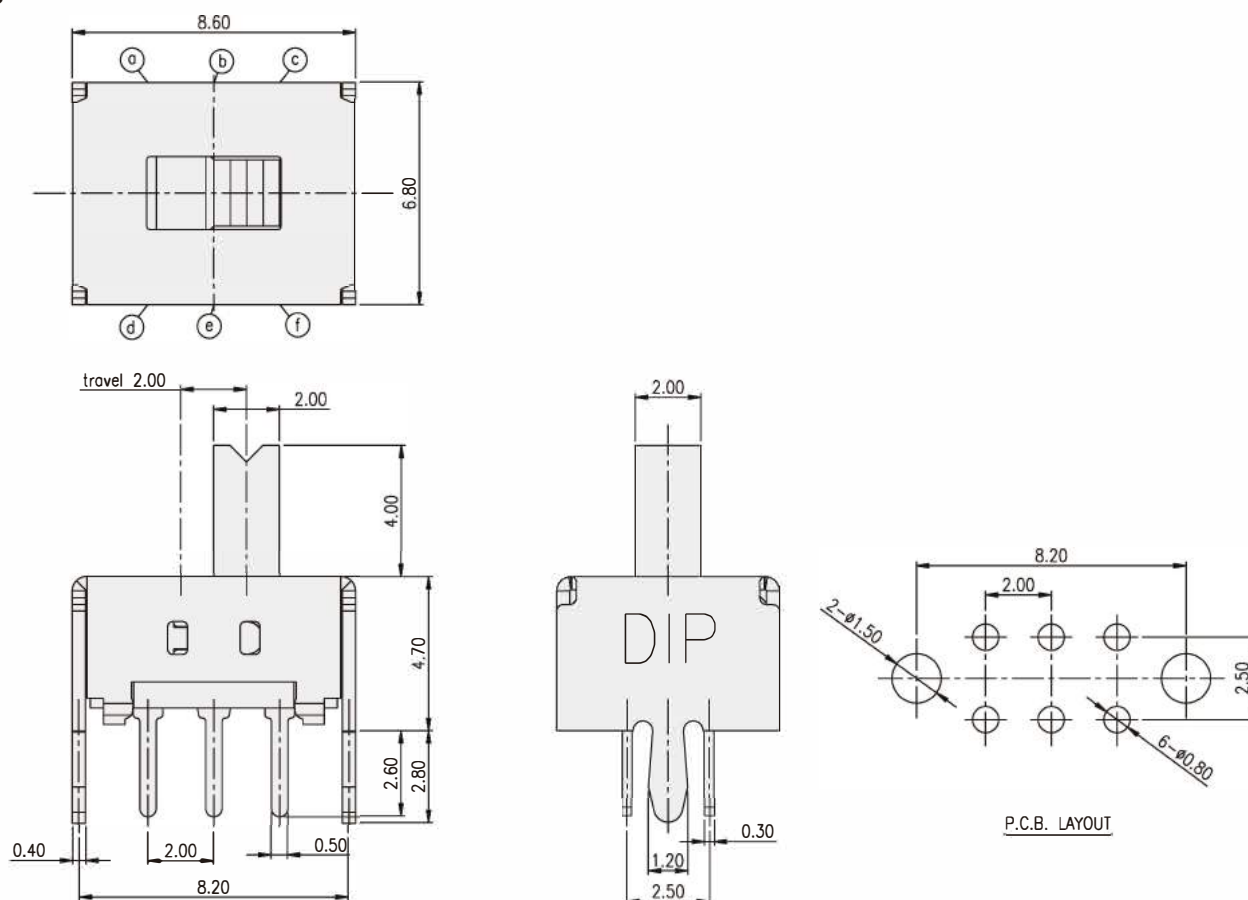
CIRCUIT

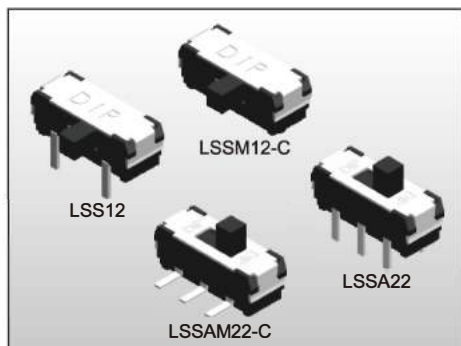


PACKAGE

<Tape & Reel>
300 pcs

SL6





FEATURES

- ※2.0mm stroke
- ※Through hole or SMT
- ※1P2T, 2P2T models

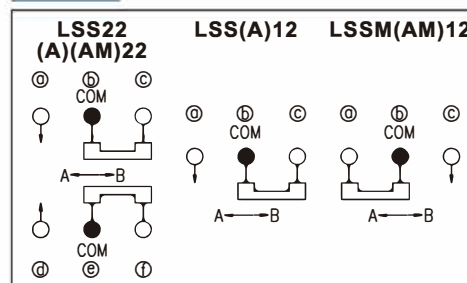
APPLICATION

- ※Remote control
- ※Consumer electronics
- ※Instrumentations

SPECIFICATION

Contact Rating	0.1A, 12V DC
Contact Resistance	60mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	200±150gf
Travel	2mm
Operating Life	10,000 cycles
Operating Temp.	-10°C ~ +60°C
Storage Temp.	-20°C ~ +70°C

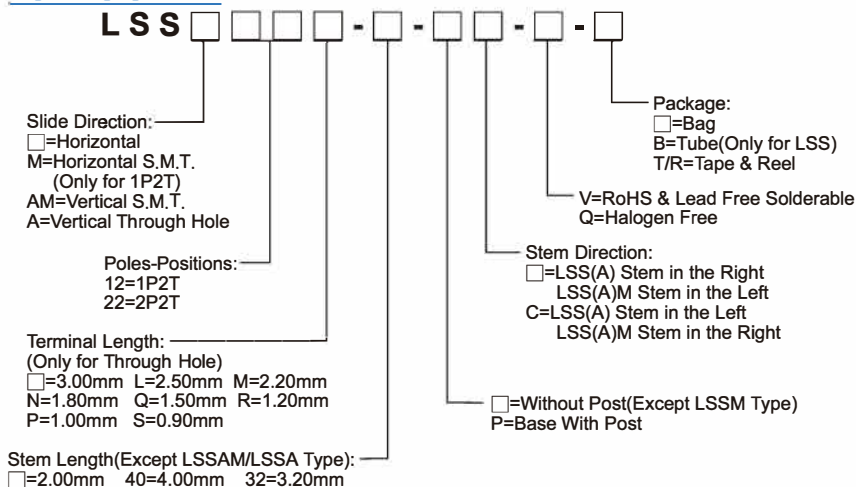
CIRCUIT



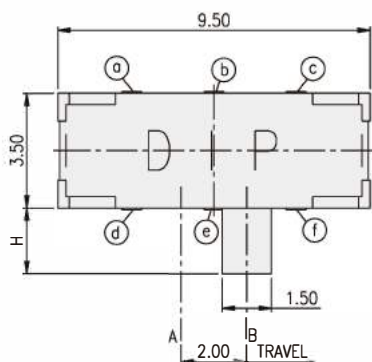
PACKAGE

- <Bag>**
LSS(A)12, 22: 1000 pcs
- <Tube>**
LSS□2, LSS□2M, LSS□2L: 50 pcs
- <Tape & Reel>**
LSS12, 22-N,P,S,Q,R: 900 pcs
LSS12, 22-□,M,L: 800 pcs
LSS12, 12-40-P, 22□-40: 800 pcs
LSSM12-P, LSSM12-40-P: 800 pcs
LSSM12: 1000 pcs
LSSA(M)12, 22: 600 pcs
LSSA12, 22M,L-P: 600 pcs
LSSA12, 22R-P: 500 pcs

HOW TO ORDER

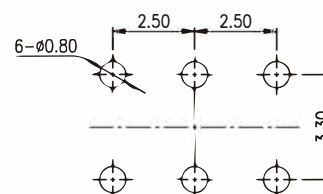
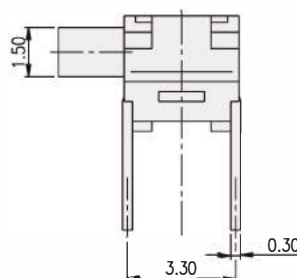
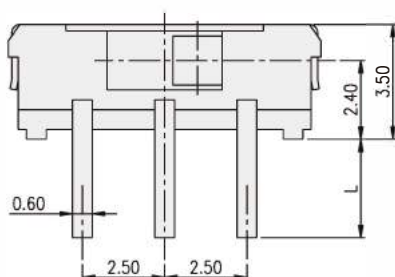


LSS22



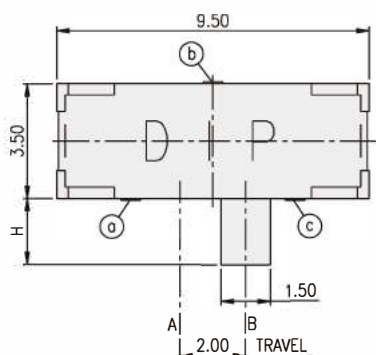
PART NO.	H
LSS22	2.0
LSS22-32	3.20
LSS22-40	4.0

PART NO.	L
LSS22	3.0
LSS22S	0.90
LSS22P	1.0
LSS22R	1.20
LSS22Q	1.50
LSS22N	1.80
LSS22M	2.20
LSS22L	2.50



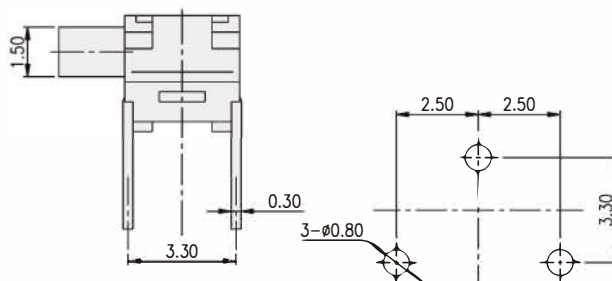
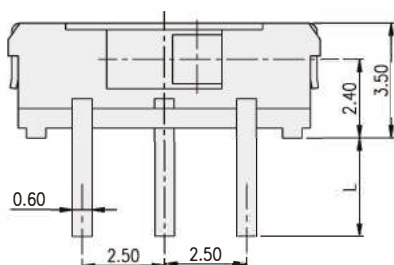
P.C.B. LAYOUT

LSS12



PART NO.	H
LSS12	2.00
LSS12-32	3.20
LSS12-40	4.00

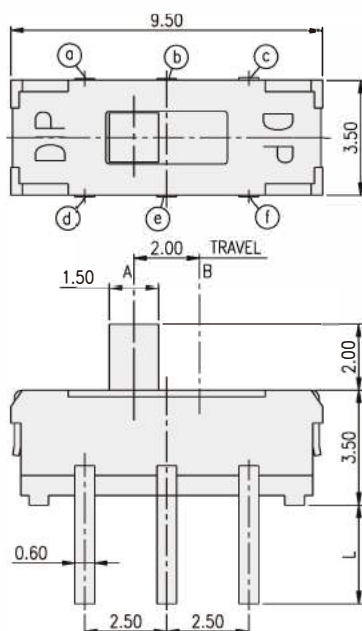
PART NO.	L
LSS12	3.0
LSS12S	0.90
LSS12P	1.0
LSS12R	1.20
LSS12Q	1.50
LSS12N	1.80
LSS12M	2.20
LSS12L	2.50



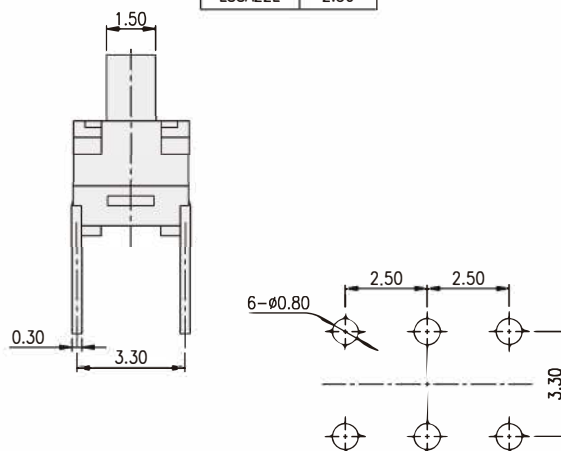
P.C.B. LAYOUT

SLIDE SWITCH

LSSA22

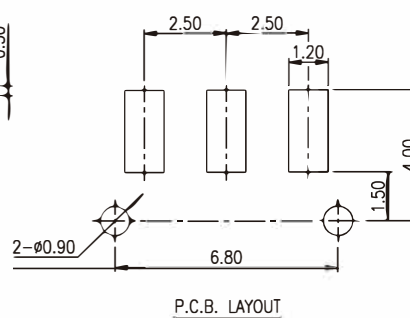
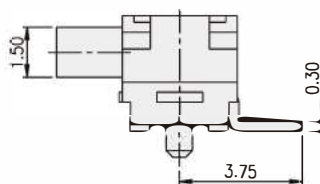
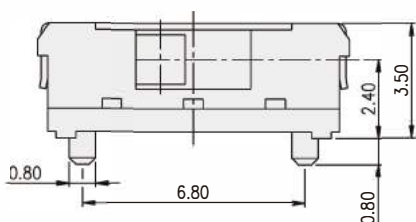
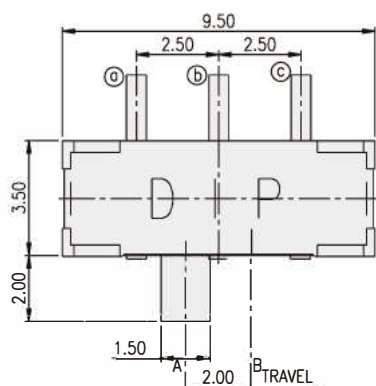


PART NO.	L
LSSA22	3.0
LSSA22S	0.90
LSSA22P	1.0
LSSA22R	1.20
LSSA22Q	1.50
LSSA22N	1.80
LSSA22M	2.20
LSSA22L	2.50

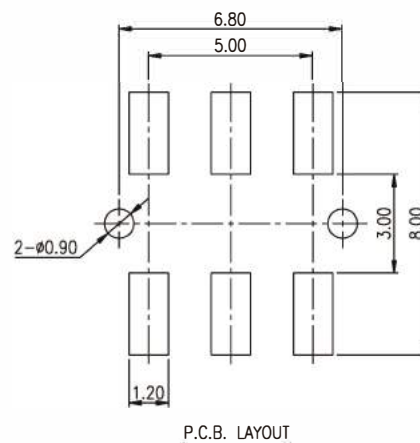
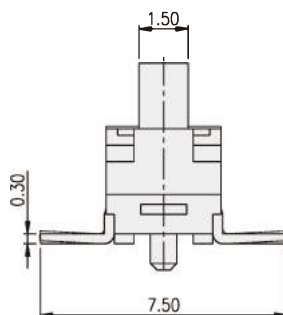
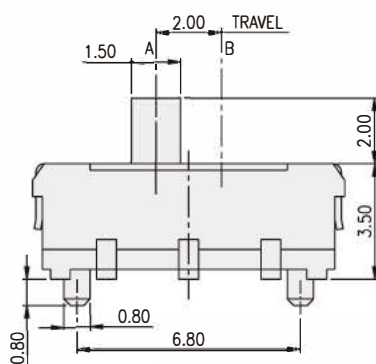
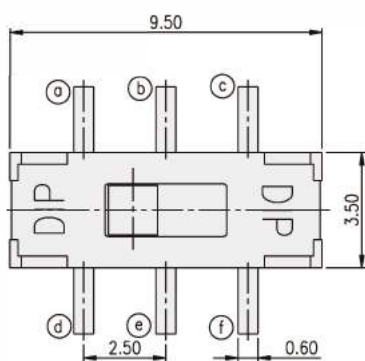


P.C.B. LAYOUT

LSSM12-P



LSSAM22-P



SLIDE SWITCH SD12 SERIES

Slide Type
(1P3T)



FEATURES

- ※1.45mm height
- ※1P3T model
- ※Single side recoil

APPLICATION

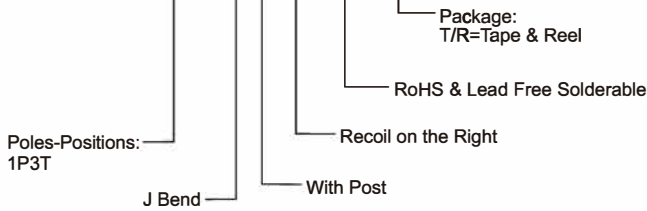
- ※Remote control
- ※Consumer electronics
- ※Instrumentations

SPECIFICATION

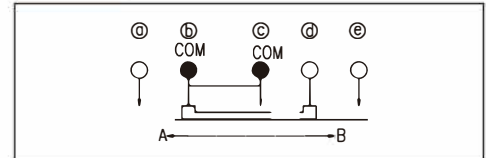
Contact Rating	0.3A, 15V DC
Contact Resistance	1Ω max.
Insulation Resistance	10MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	150±100gf
Travel	1.5mm
Operating Life	5,000 cycles
Operating Temp.	-10°C ~ +60°C
Storage Temp.	-25°C ~ +85°C

HOW TO ORDER

SD12-LPR-V-



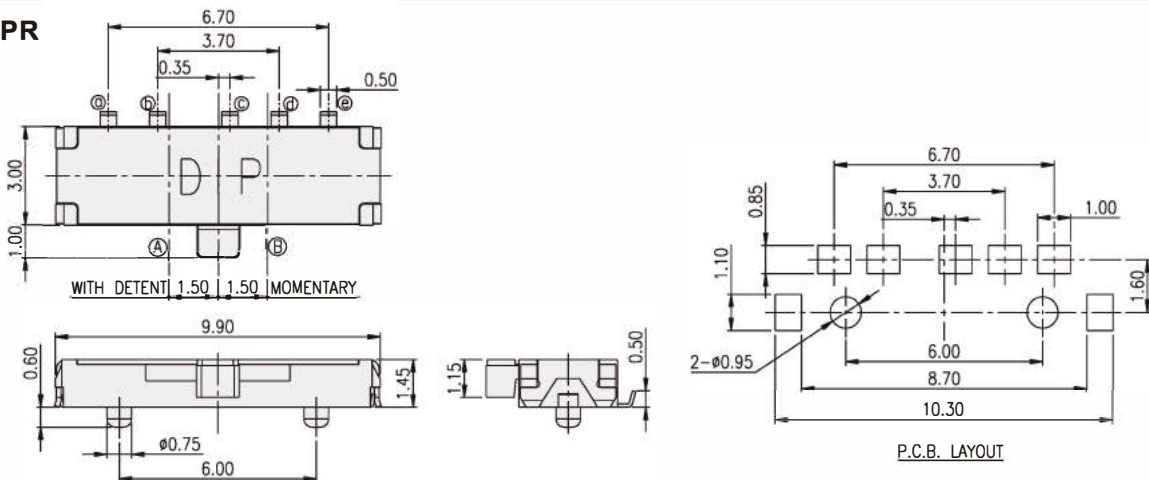
CIRCUIT

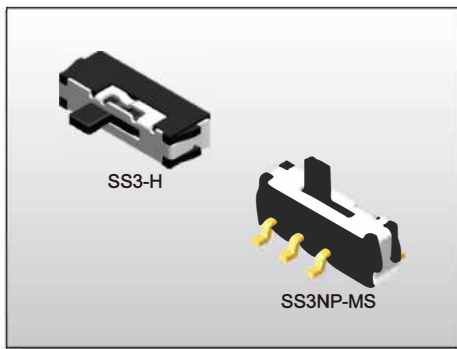


PACKAGE

<Tape & Reel>
3000 pcs

SD12-LPR





FEATURES

- ※2.0mm height
- ※1P2T model
- ※Reflow solderable

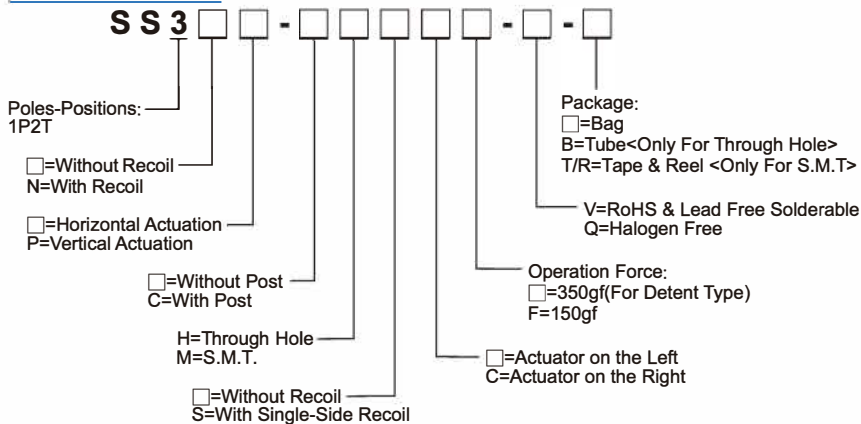
APPLICATION

- ※Remote control
- ※Consumer electronics
- ※Instrumentations

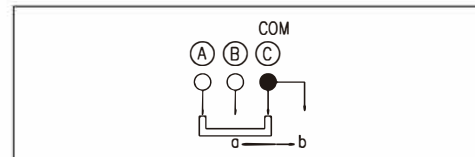
SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	100gf min./350gf max.(Detent Type) 150±100gf(Recoil Type)
Travel	2mm
Operating Life	10,000 cycles
Operating Temp.	-20°C ~ +70°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER



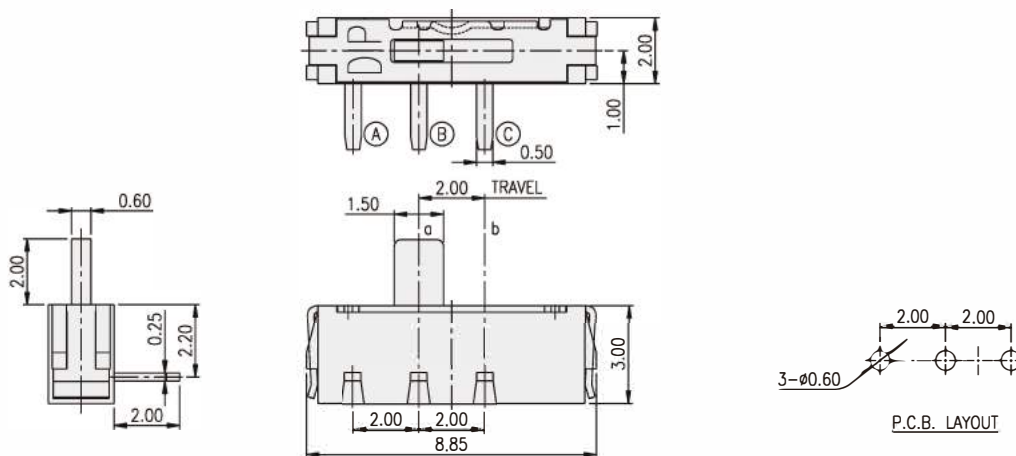
CIRCUIT



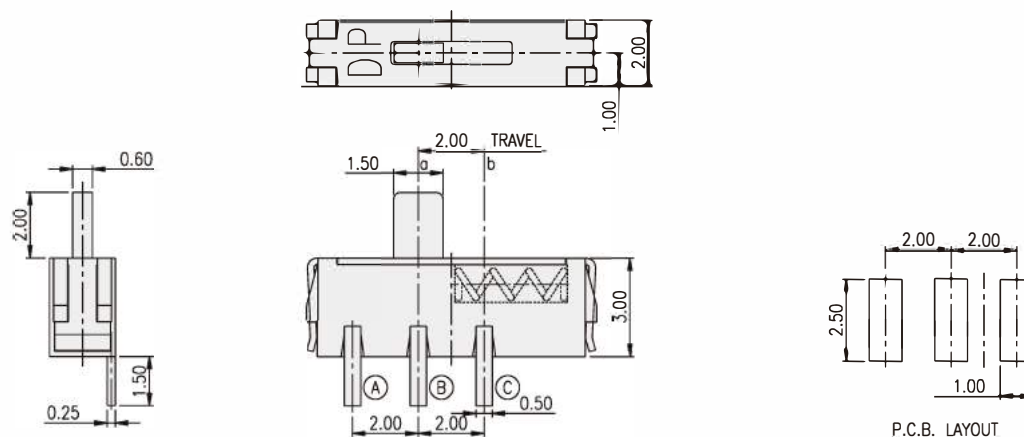
PACKAGE

- <Bag>
2000 pcs
- <Tube>
53 pcs
- <Tape & Reel>
SS3-CM: 1900 pcs
SS3NP: 1000 pcs

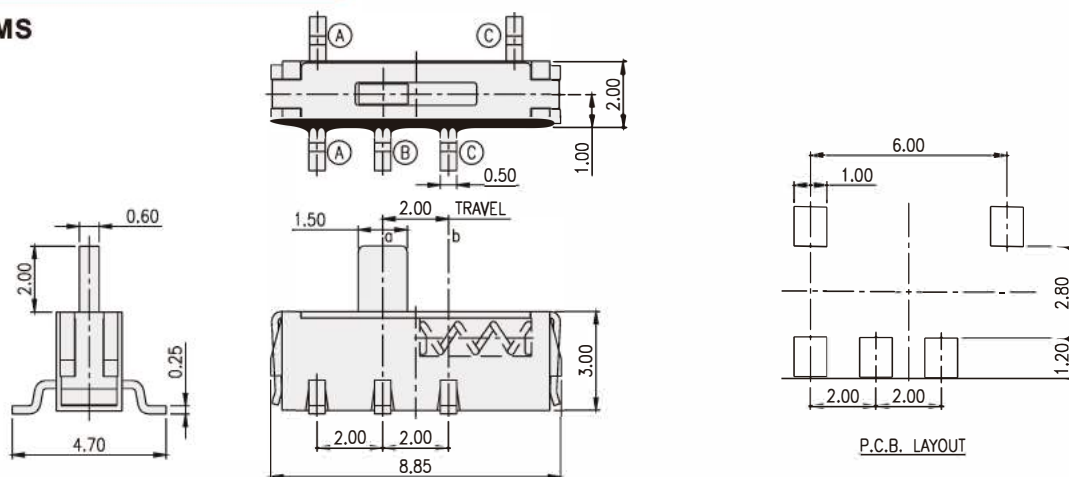
SS3-H



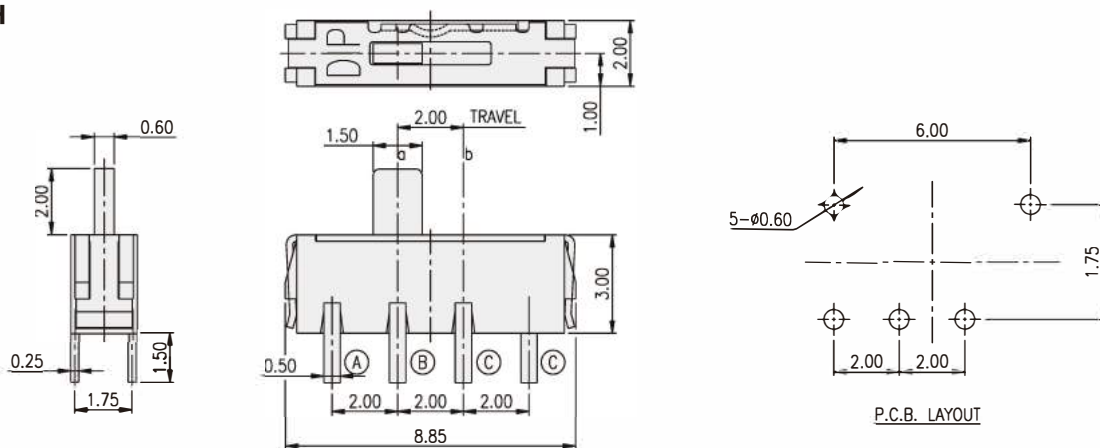
SS3N-MS



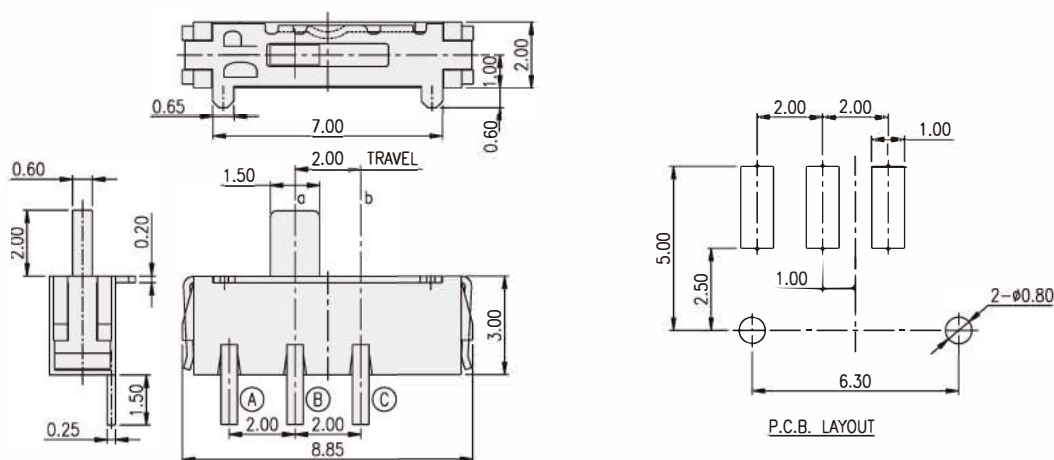
SS3NP-MS

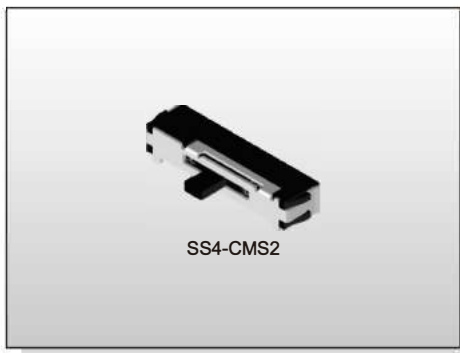


SS3P-H



SS3-CM





SS4-CMS2

FEATURES

- ※2.0mm height
- ※1P3T model
- ※Reflow solderable

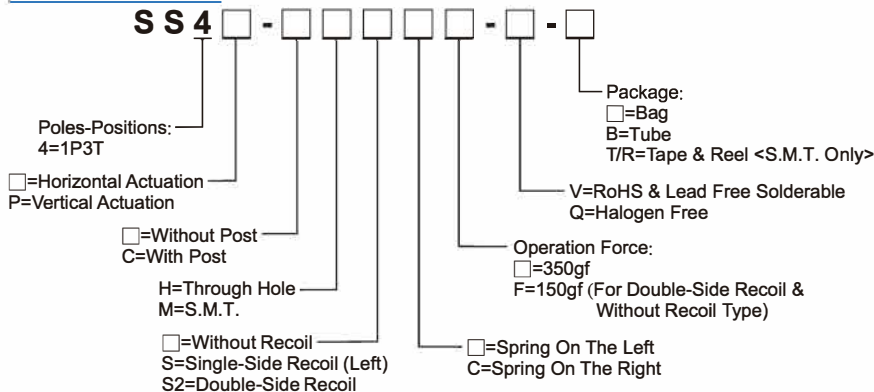
APPLICATION

- ※Remote control
- ※Consumer electronics
- ※Instrumentations

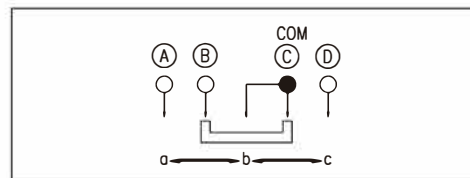
SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	100gf min./350gf max. (Detent Type) 150±100gf (Recoil Type)
Travel	2mm
Operating Life	10,000 cycles
Operating Temp.	-20°C ~ +70°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER



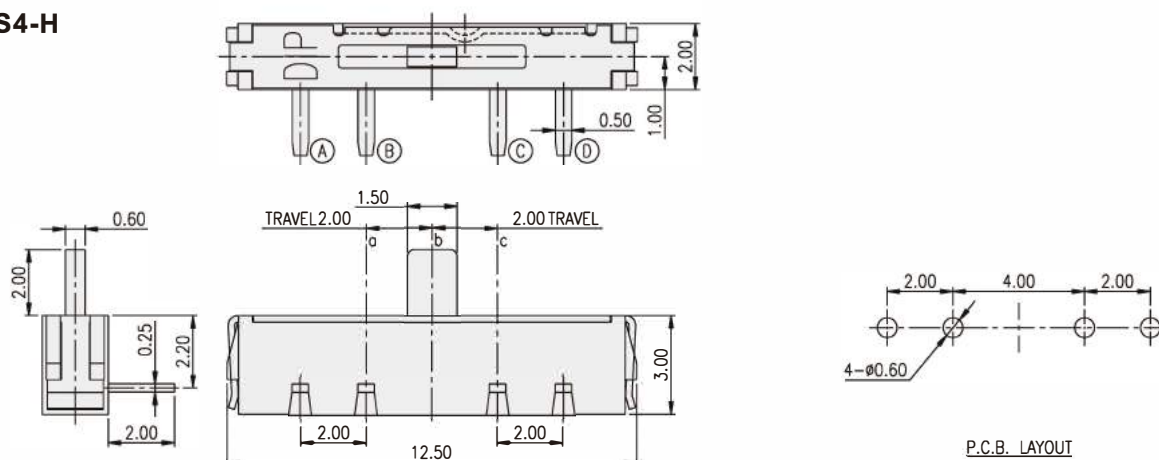
CIRCUIT



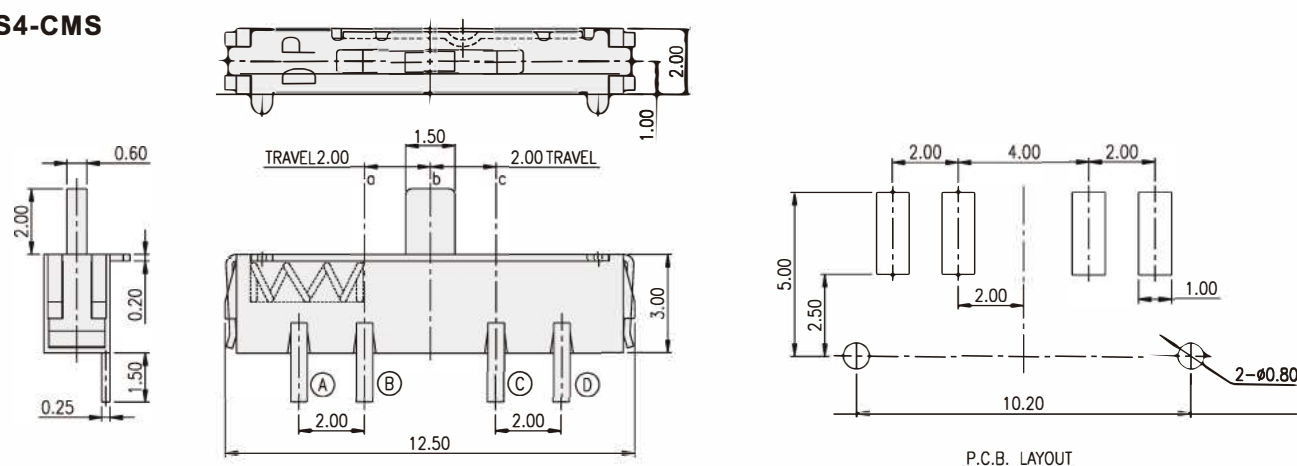
PACKAGE

- <Bag>
1500 pcs
- <Tube>
38 pcs
- <Tape & Reel>
1900 pcs

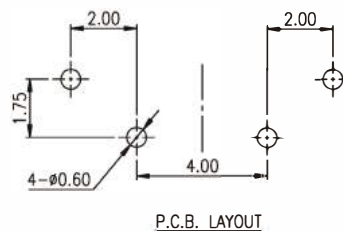
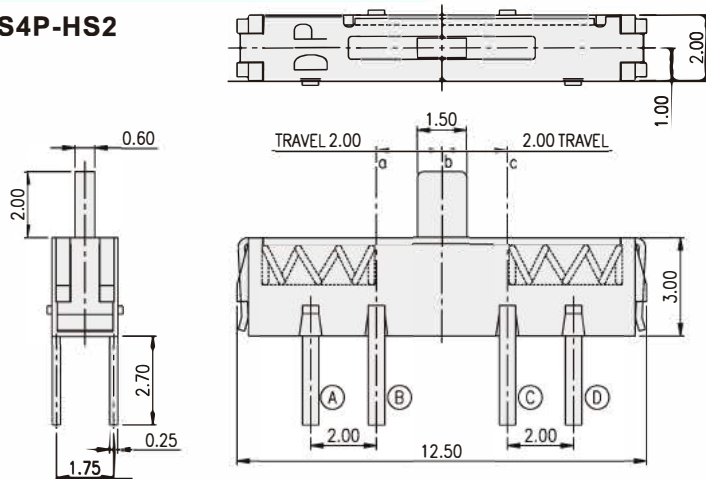
SS4-H



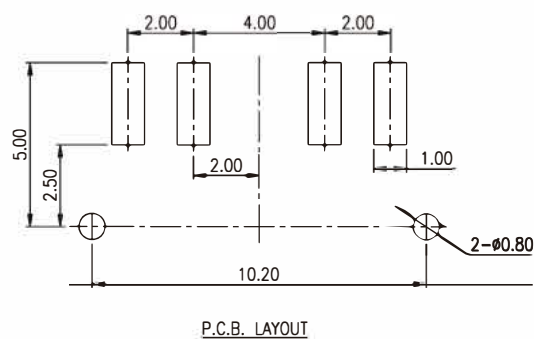
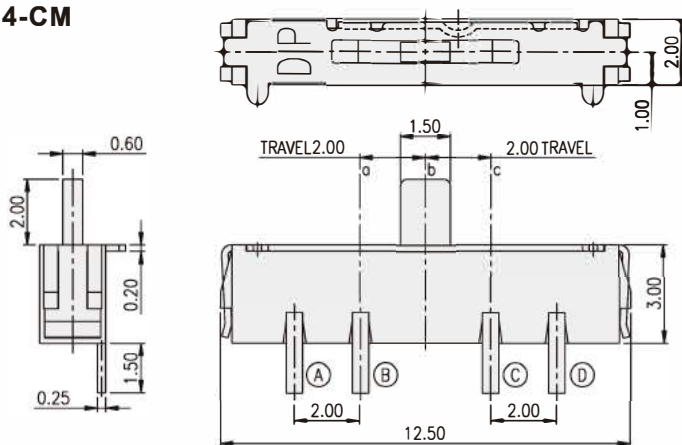
SS4-CMS



SS4P-HS2



SS4-CM



SLIDE SWITCH MSS(3)4 SERIES

Miniature & SMT Type
(1P2T, 1P3T)



FEATURES

- ※ 1.4mm height
- ※ 1P2T, 1P3T models
- ※ Stroke 1.5mm

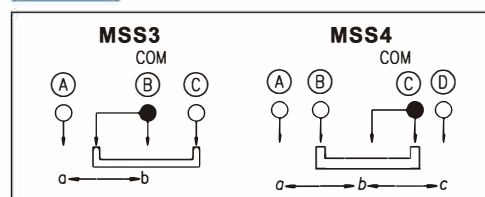
APPLICATION

- ※ Remote control
- ※ Consumer electronics
- ※ Instrumentations

SPECIFICATION

Contact Rating	25mA , 24V DC
Contact Resistance	70mΩ max
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	150±100gf (1.47N±0.98N) MSS3 A→B 150±100gf (1.47N±0.98N) C→B 150±100gf (1.47N±0.98N) B→C 200±150gf (1.96N±1.47N) MSS4 B→A 200±150gf (1.96N±1.47N)
Travel	1.5mm
Operating Life	10,000 cycles
Operating Temp.	-20°C ~ +70°C
Storage Temp.	-40°C ~ +85°C

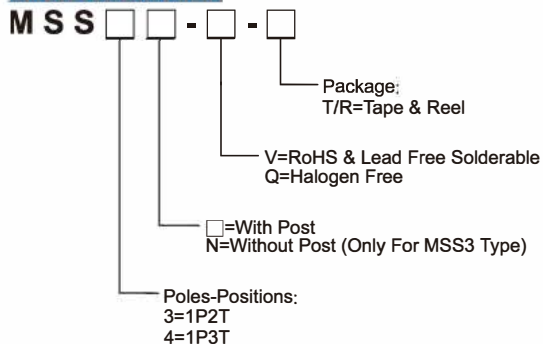
CIRCUIT



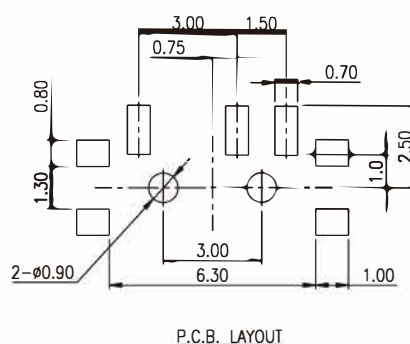
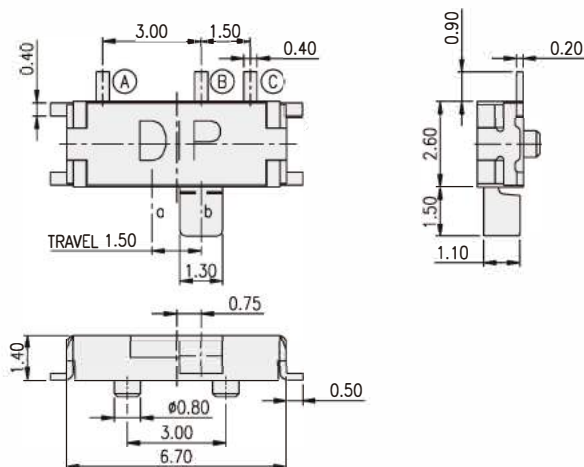
PACKAGE

<Tape & Reel>
2500 pcs

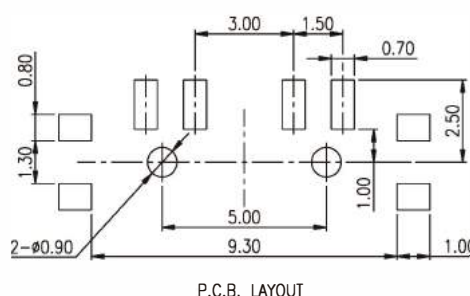
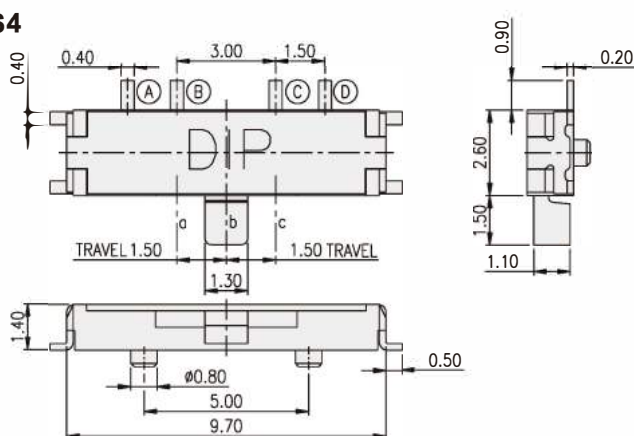
HOW TO ORDER



MSS3



MSS4



SLIDE SWITCH MSS(6)(14) SERIES

Miniature Travel & SMT Type
(2P2T, 1P4T)



FEATURES

- ※ 1.4mm height
- ※ 2P2T, 1P4T models
- ※ Stroke 1.5mm

APPLICATION

- ※ Remote control
- ※ Consumer electronics
- ※ Instrumentations

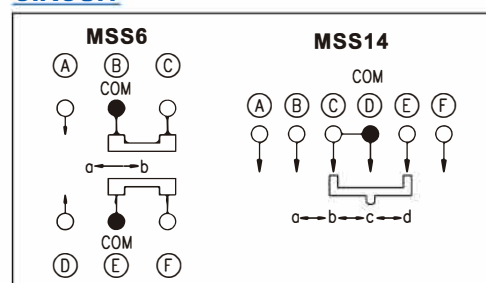
SPECIFICATION

Contact Rating	25mA , 24V DC	
Contact Resistance	70mΩ max	
Insulation Resistance	100MΩ min. 100V DC	
Dielectric Strength	100V AC/1 minute	
Operating Force	200±150gf (1.96N±1.47N)	MSS6
	A→B 150±100gf (1.47N±0.98N)	MSS14
	D→C 150±100gf (1.47N±0.98N)	
	B→C 200±150gf (1.96N±1.47N)	
	C→D 200±150gf (1.96N±1.47N)	
	C→B 200±150gf (1.96N±1.47N)	
B→A 200±150gf (1.96N±1.47N)		
Travel	1.5mm	
Operating Life	10, 000 cycles	
Operating Temp.	-20°C ~ +70°C	
Storage Temp.	-40°C ~ +85°C	

HOW TO ORDER

M S S - -
 Package:
T/R=Tape & Reel
 V=RoHS & Lead Free Solderable
Q=Halogen Free
 Poles-Positions:
6=2P2T
14=1P4T

CIRCUIT

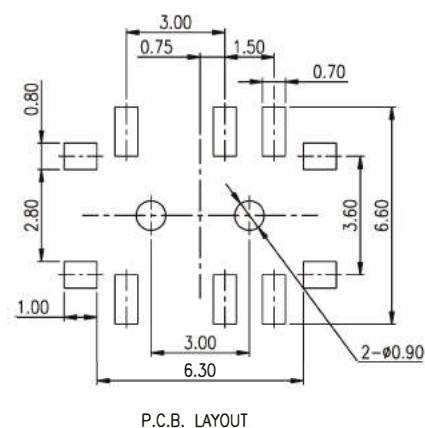
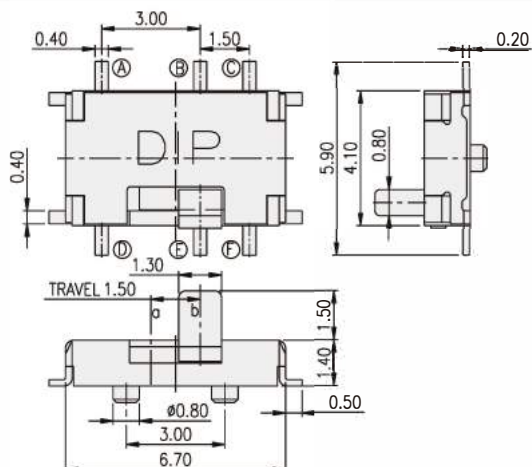


PACKAGE

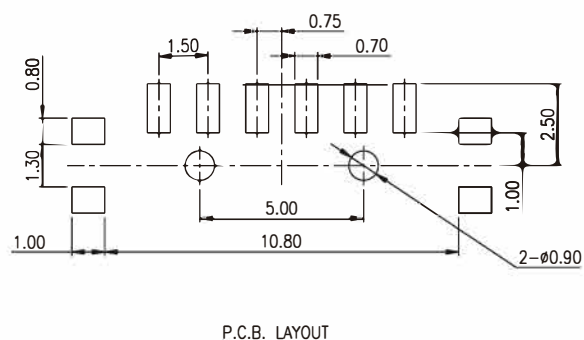
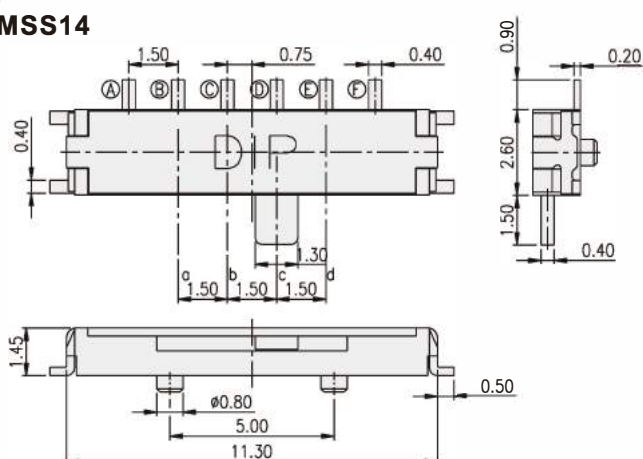
<Tape & Reel>

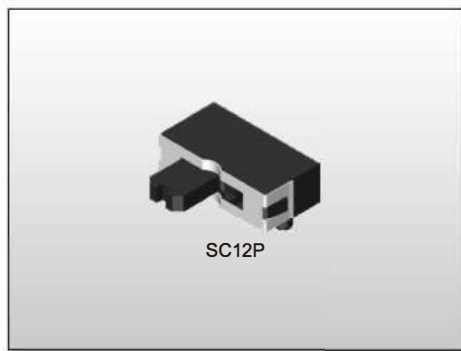
MSS6: 1400 pcs
MSS14: 2500 pcs

MSS6



MSS14





FEATURES

- ※ 3.0mm height
- ※ Through hole type
- ※ 1P2T model

APPLICATION

- ※ Remote control
- ※ Consumer electronics
- ※ Instrumentations

SPECIFICATION

Contact Rating	0.3A, 10V DC
Contact Resistance	50mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	100~300gf
Travel	2.5mm
Operating Life	10, 000 cycles
Operating Temp.	-10°C ~ +60°C
Storage Temp.	-20°C ~ +75°C

HOW TO ORDER

SC12P - □ QR

Package:
Tape & Reel

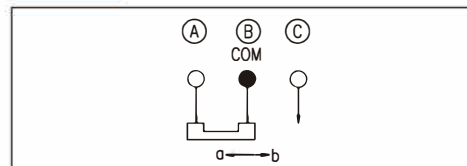
Halogen Free

Terminal Length:
A=2.50mm
B=1.20mm
C=1.00mm
D=0.80mm

Poles-Positions:
1P2T

With Post

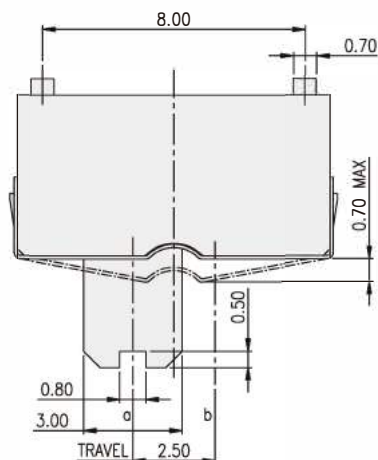
CIRCUIT



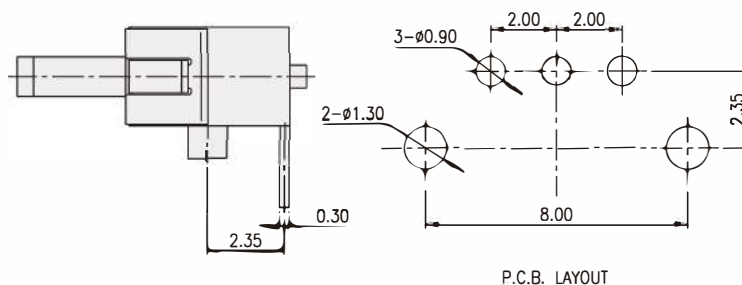
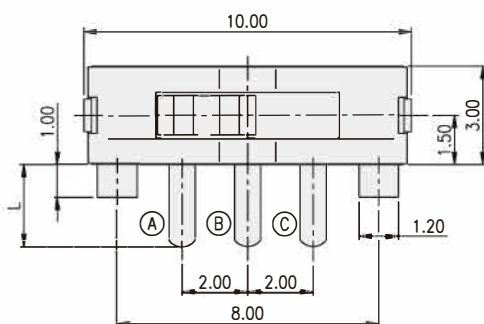
PACKAGE

<Tape & Reel>
650 pcs

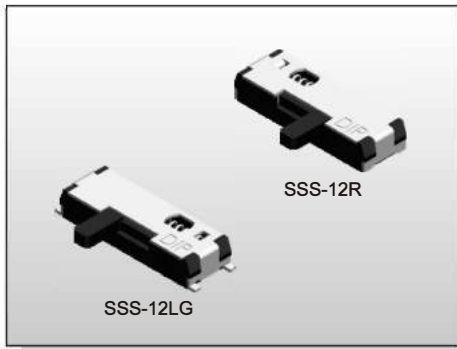
SC12P



PART NO.	L
SC12P-A	2.50
SC12P-B	1.20
SC12P-C	1.00
SC12P-D	0.80



P.C.B. LAYOUT



FEATURES

- ※2.0mm height
- ※1P2T model
- ※Stroke 2.7mm

APPLICATION

- ※Remote control
- ※Consumer electronics
- ※Instrumentations

SPECIFICATION

Contact Rating	0.3A, 4V DC
Contact Resistance	70mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	180±70gf
Travel	2.7mm
Operating Life	10,000 cycles
Operating Temp.	-10°C ~ +60°C
Storage Temp.	-20°C ~ +75°C

HOW TO ORDER

SSS - 12

Poles-Positions:
1P2T

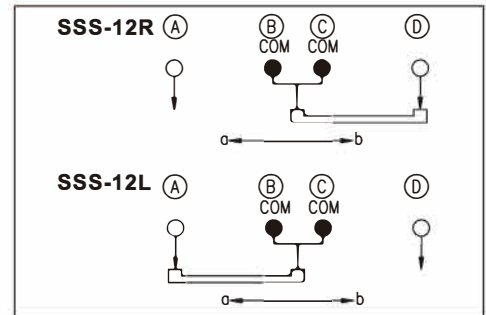
L=Actuator on the Left
R=Actuator on the Right

Package:
T/R=Tape & Reel

V=RoHS & Lead Free Solderable
Q=Halogen Free

□=Without Ground Pin
G=Ground Pin

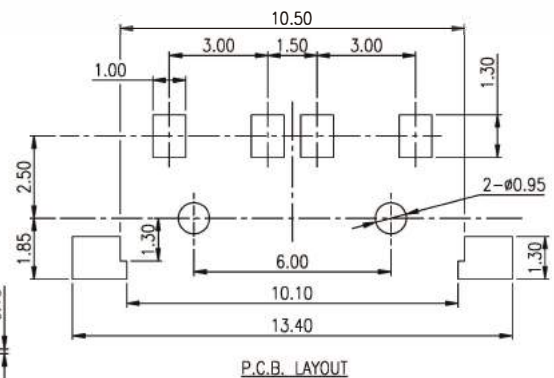
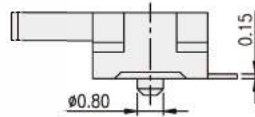
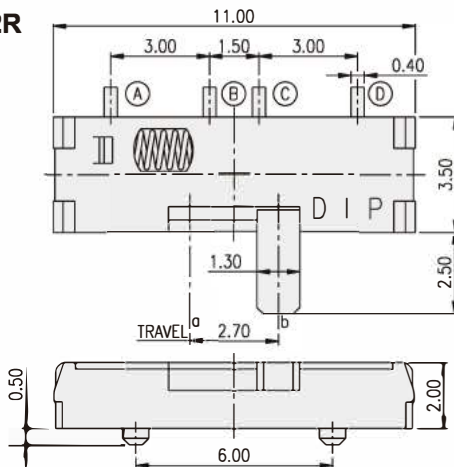
CIRCUIT



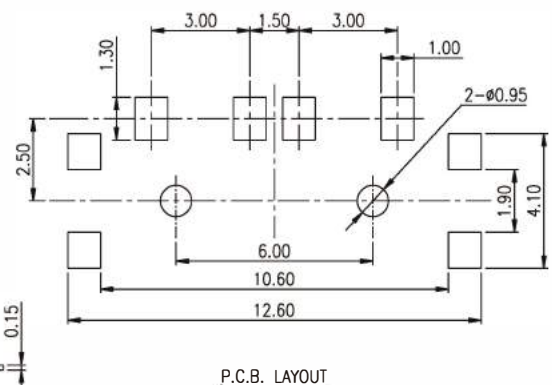
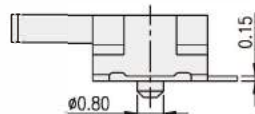
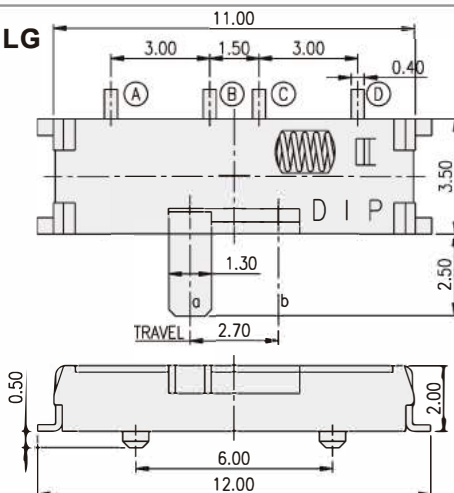
PACKAGE

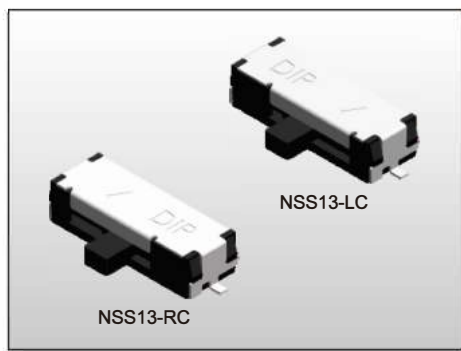
<Tape & Reel>
2000 pcs

SSS-12R



SSS-12LG





FEATURES

- ※ 1P3T model
- ※ Single-side recoil type
- ※ Reflow solderable

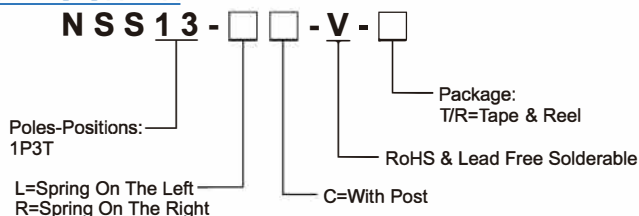
APPLICATION

- ※ Remote control
- ※ Consumer electronics
- ※ Instrumentations

SPECIFICATION

Contact Rating	0.3A, 4V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	320±150gf (ON-TEST) 320±150gf (OFF-ON) 500+100/-200gf (ON-OFF)
Travel	2mm (ON-TEST) 4mm (OFF-ON) 4mm (ON-OFF)
Operating Life	10, 000 cycles
Operating Temp.	-20°C ~ +70°C
Storage Temp.	-40°C ~ +85°C

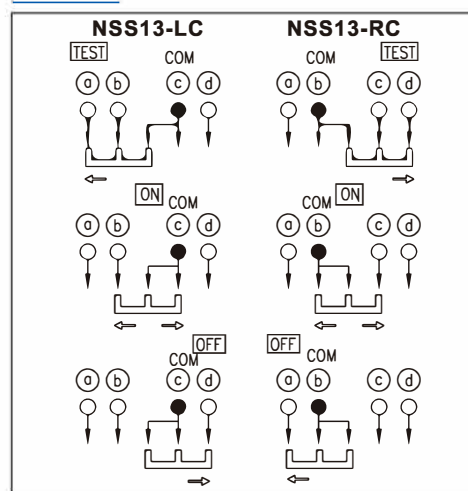
HOW TO ORDER



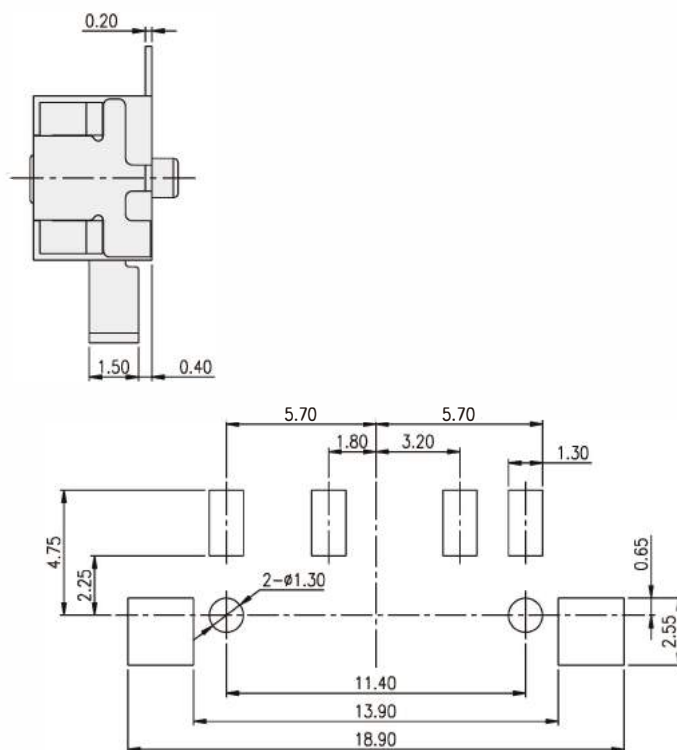
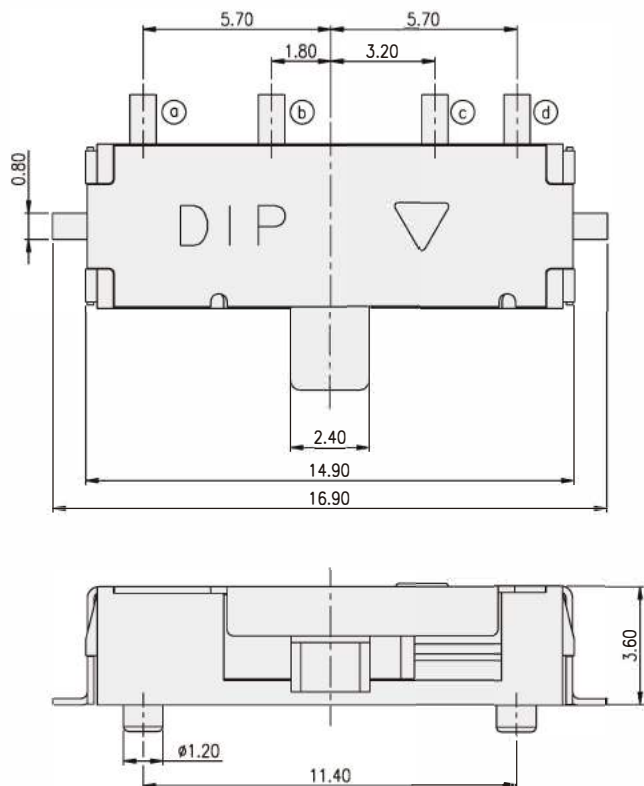
PACKAGE

<Tape & Reel>
800 pcs

CIRCUIT

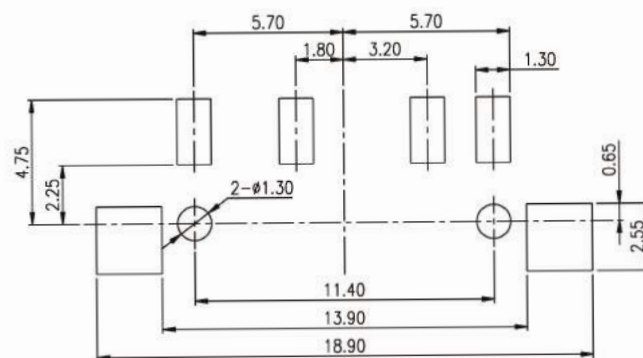
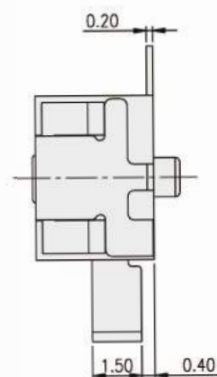
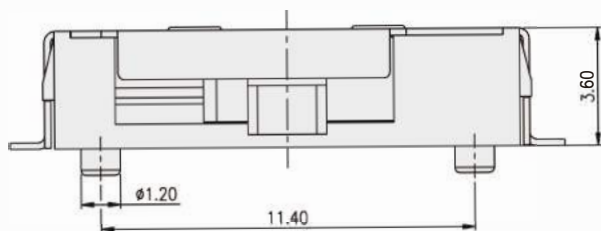
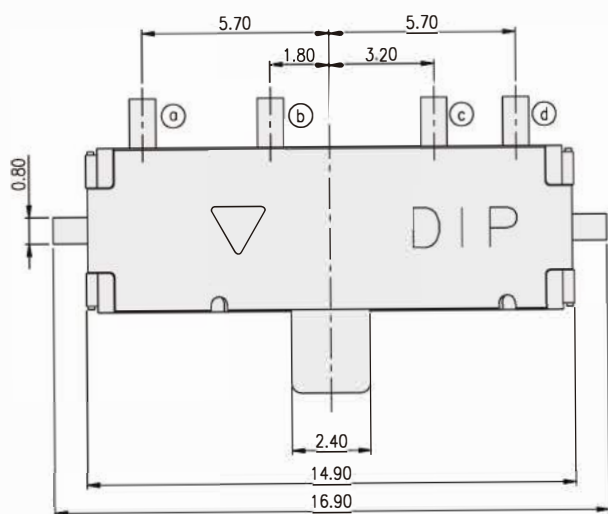


NSS13-LC



P.C.B. LAYOUT

NSS13-RC



P.C.B. LAYOUT



FEATURES

- ※2.0mm height
- ※Double-side recoil
- ※Stroke 1.5mm

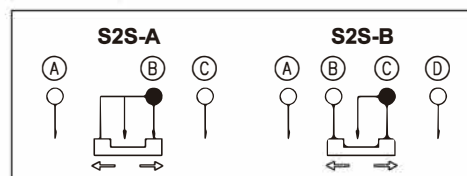
APPLICATION

- ※Remote control
- ※Consumer electronics
- ※Instrumentations

SPECIFICATION

Contact Rating	300mA, 4V DC
Contact Resistance	70mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	100±50gf
Travel	1.5mm
Operating Life	50,000 cycles
Operating Temp.	-30°C ~ +80°C
Storage Temp.	-40°C ~ +90°C

CIRCUIT



PACKAGE

<Tape & Reel>
2000 pcs

HOW TO ORDER

S2S---

Package:
T/R=Tape & Reel

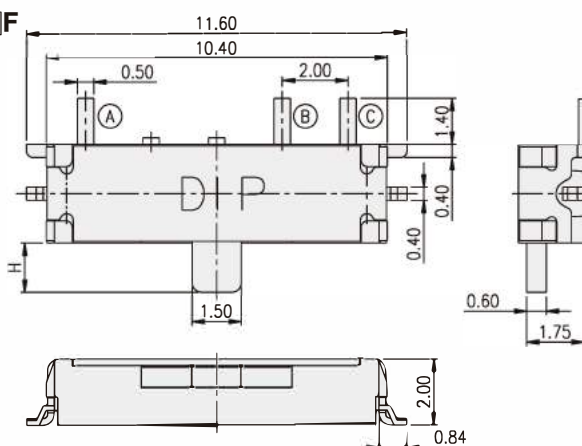
V=RoHS & Lead Free Solderable
Q=Halogen Free

Poles-Positions:-
A=1P2T
B=1P3T

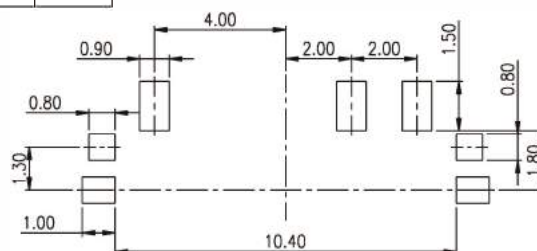
□=Without Post
C=With Post

Actuator Length: L=J Bend
15=1.50mm F=S.M.T. Flat
25=2.50mm

S2S-A**F**

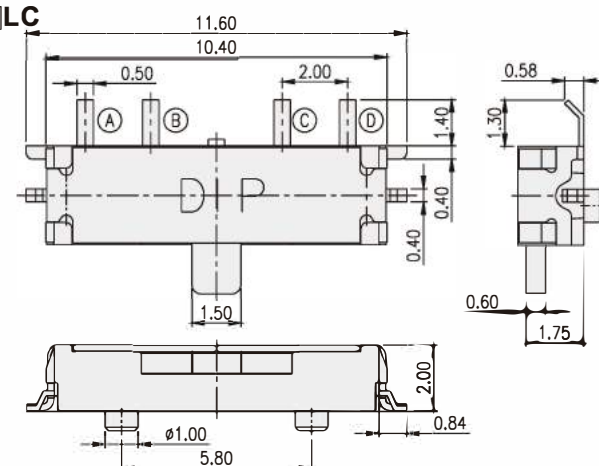


PART NO.	H
S2S-A15F	1.50
S2S-A25F	2.50

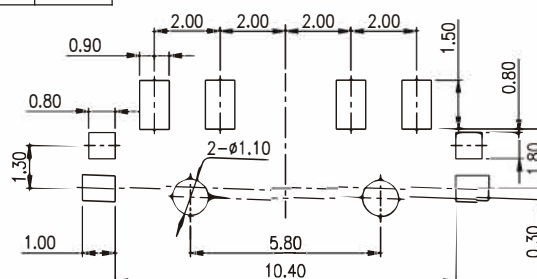


P.C.B. LAYOUT

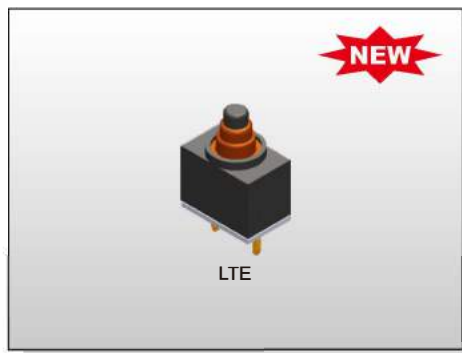
S2S-B LC



PART NO.	H
S2S-B15LC	1.50
S2S-B25LC	2.50



P.C.B. LAYOUT



FEATURES

- ※Water-proof type
- ※Compact size
- ※PCB Space saving

APPLICATION

- ※White goods
- ※Automotive
- ※Motorcycle

SPECIFICATION

Contact Rating	50μA, 5V DC 0.1A, 12V DC
Contact Resistance	500mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	500V AC/1 minute
Operating Force	102±50gf
Operating Position	4.1±0.3mm
Operating Life	300,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER

LTE - 1 1 N □ Q

Normal Open

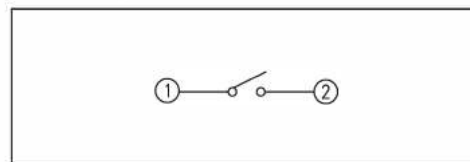
Operating Force:
102gf (1N)

Cover Type(Screw Mounting):
N=Non
T=Top Side

Halogen Free

Terminal Type:
1=PC Board Terminal Type
2=Lead Terminal Type

CIRCUIT

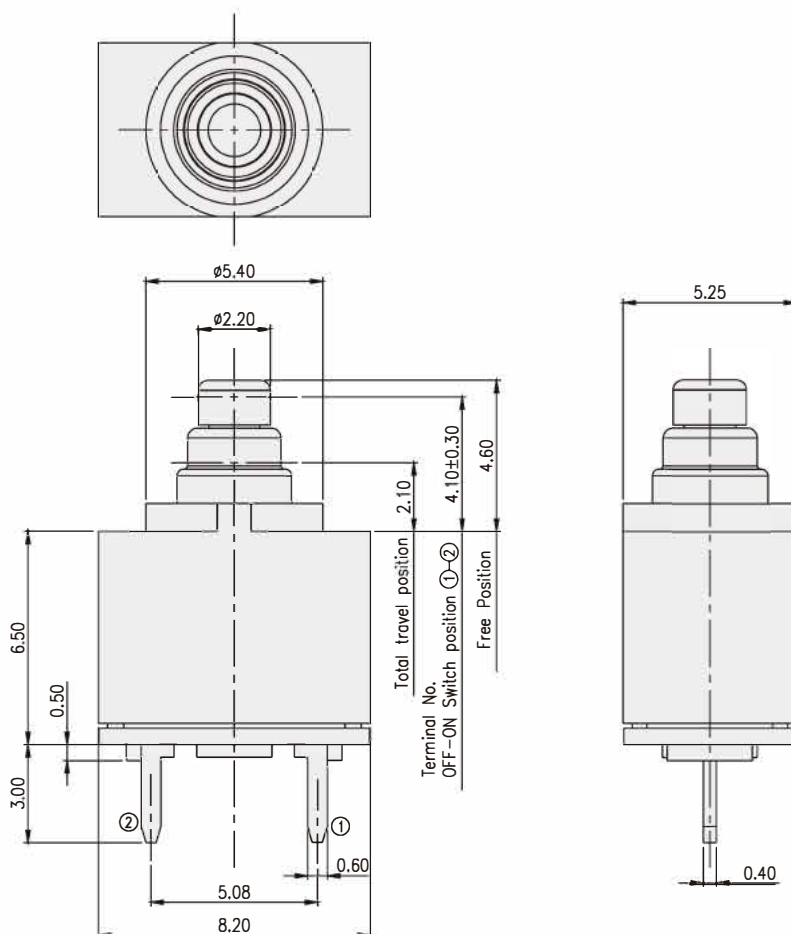


PACKAGE

<Bag>

250 pcs

LTE





FEATURES

- ※Noiseless operation
- ※Dust and water resistance
- ※With internal resistors option

APPLICATION

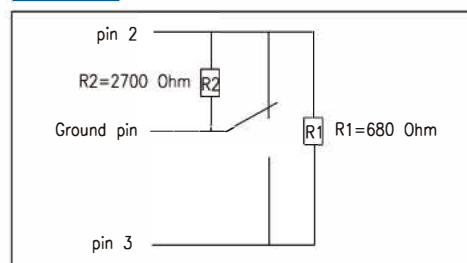
- ※Automotive
- ※Industrial equipment
- ※White goods

SPECIFICATION

Contact Rating	1mA~100mA, $\leq 25V$ DC
Contact Resistance	free position($680\Omega \pm 1.5\%$) 8.3mm~9.15mm ($3380\Omega \pm 1.5\%$) 6.85mm~8.0mm ($\leq 500m\Omega$)
Insulation Resistance	100M Ω min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	Actuating Force $\leq 1.6N$
Operating Life	200,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

※Only for without resistors type.

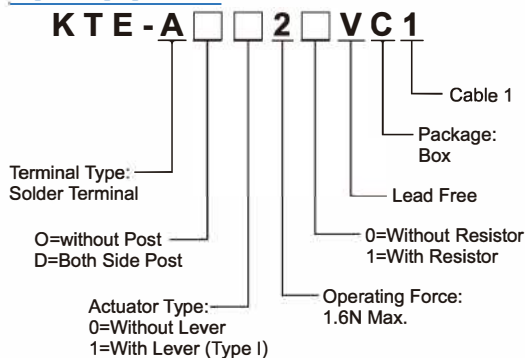
CIRCUIT



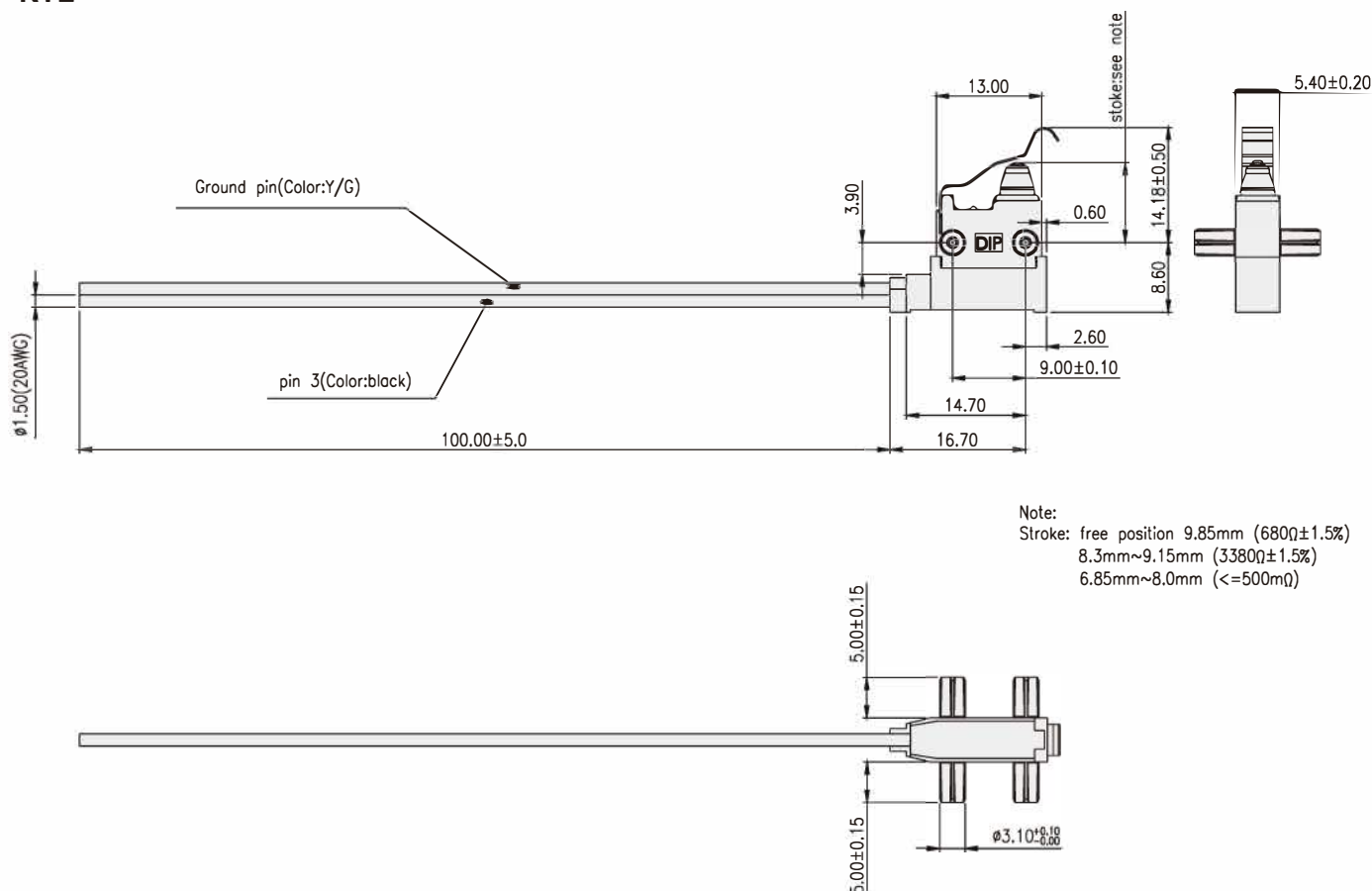
PACKAGE

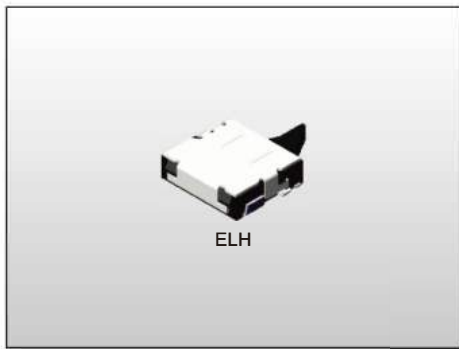
<Box>
240 pcs

HOW TO ORDER



KTE





FEATURES

- ※ Compact size
- ※ Two-way operating
- ※ Halogen Free

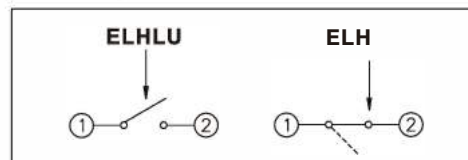
APPLICATION

- ※ Digital camera
- ※ Notebook
- ※ Automotive

SPECIFICATION

Contact Rating	50μA, 3V DC min. 1mA, 5V DC max.
Contact Resistance	2Ω max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	35gf max.
Travel	1.15mm
Operating Life	50,000 cycles
Operating Temp.	-10°C ~ +60°C
Storage Temp.	-40°C ~ +85°C

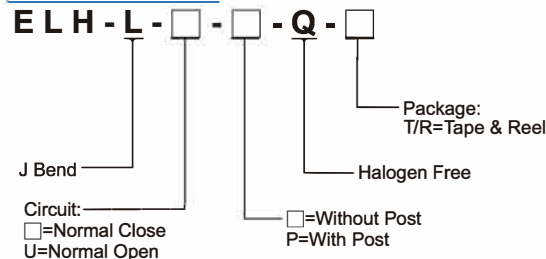
CIRCUIT



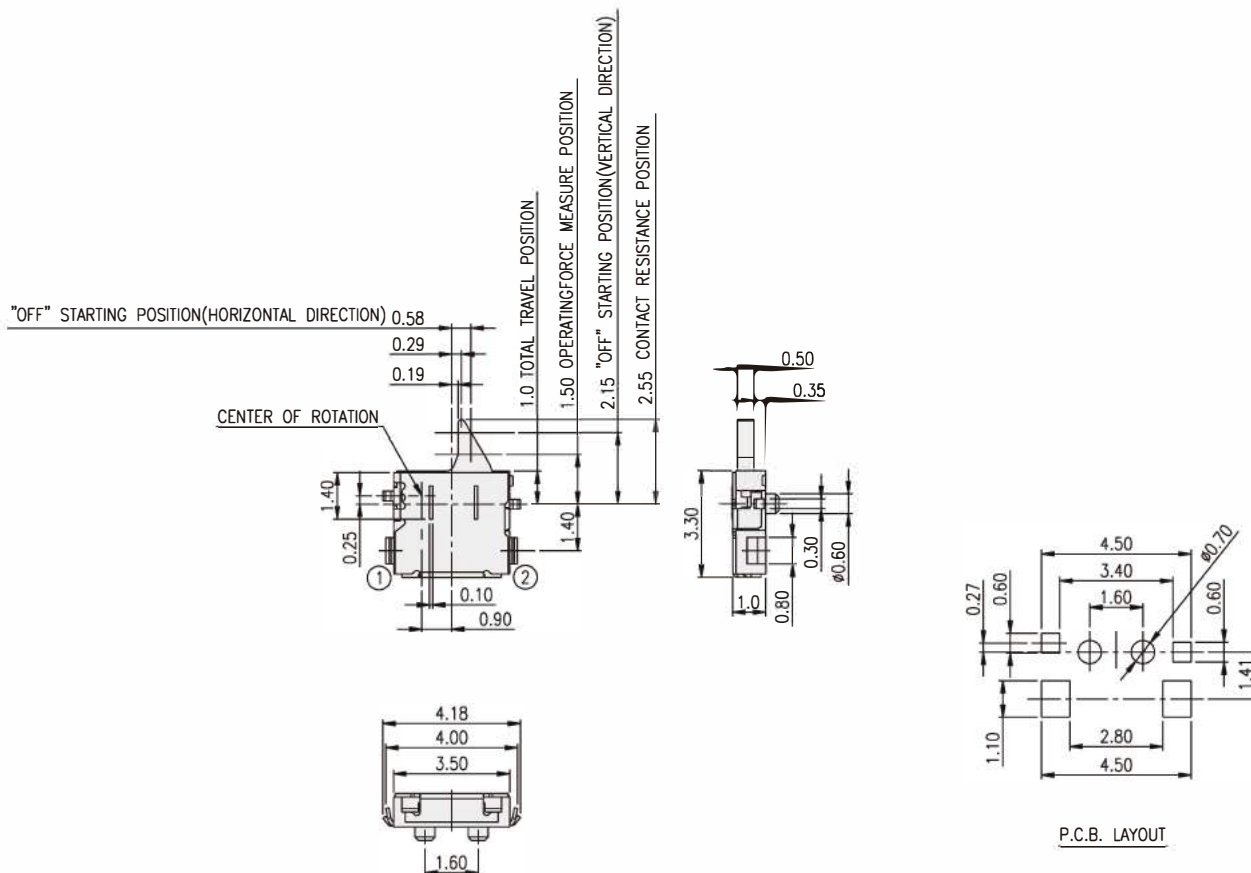
PACKAGE

<Tape & Reel>
3500 pcs

HOW TO ORDER



ELH





ELU

FEATURES

- ※ Compact sized
- ※ Sharp detection feeling

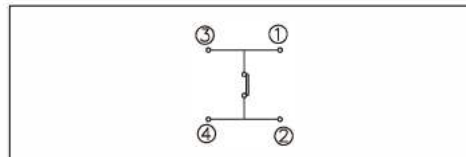
APPLICATION

- ※ Consumer electronics
- ※ Safety control device
- ※ Heat energy regulator

SPECIFICATION

Contact Rating	100μA, 3V DC min. 1mA, 5V DC max.
Contact Resistance	3Ω max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	35gf max.
Travel	2.50mm
Operating Life	50,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

<Tape & Reel>
2000 pcs

HOW TO ORDER

E L U ☐ ☐ ☐ **Q R**

☐=Without Post
P=With Post

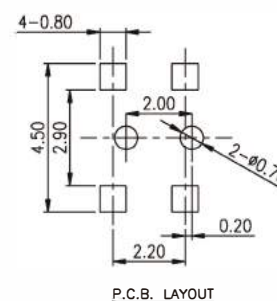
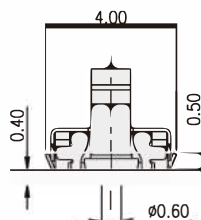
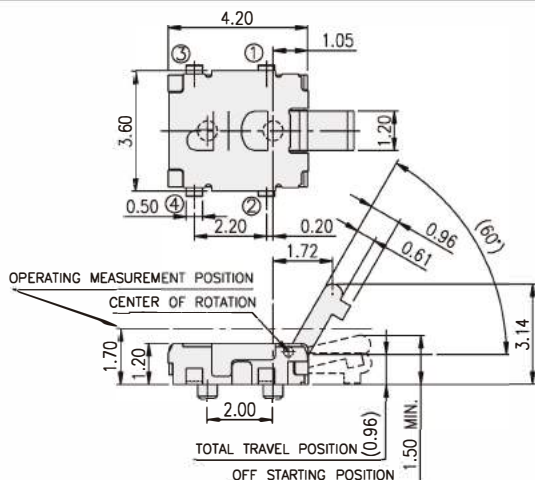
Terminal Type
F=With Flat Terminal
L=With Bending Terminal

Package:
Tape & Reel

Halogen Free

Circuit:
C=Normal Close
☐=Normal Open

ELU





FEATURES

- ※PC board terminals option
- ※Solder terminals option with wire
- ※IP67 dust and water resistance
- ※With Internal Resistors option

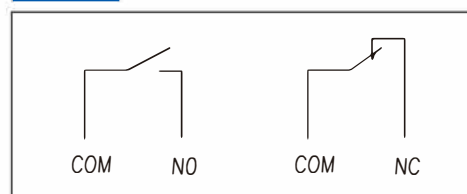
APPLICATION

- ※White goods
- ※Automotive
- ※Motorcycle

SPECIFICATION

Contact Rating	1mA, 5V DC 0.1A, 30V DC
Contact Resistance	1Ω max.
Insulation Resistance	100MΩ min.
Dielectric Strength	600V AC/1 minute
Operating Force	153gf max.
Operating Position	NC OP 8.7±0.3mm NO OP 8.4±0.3mm
Operating Life	10mA, 14V DC 500,000 cycles 0.1A, 30V DC 200,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

<Bag>
250 pcs

HOW TO ORDER

ESG - V

Cover Type: ☐ 1=M3 Screw Mounting

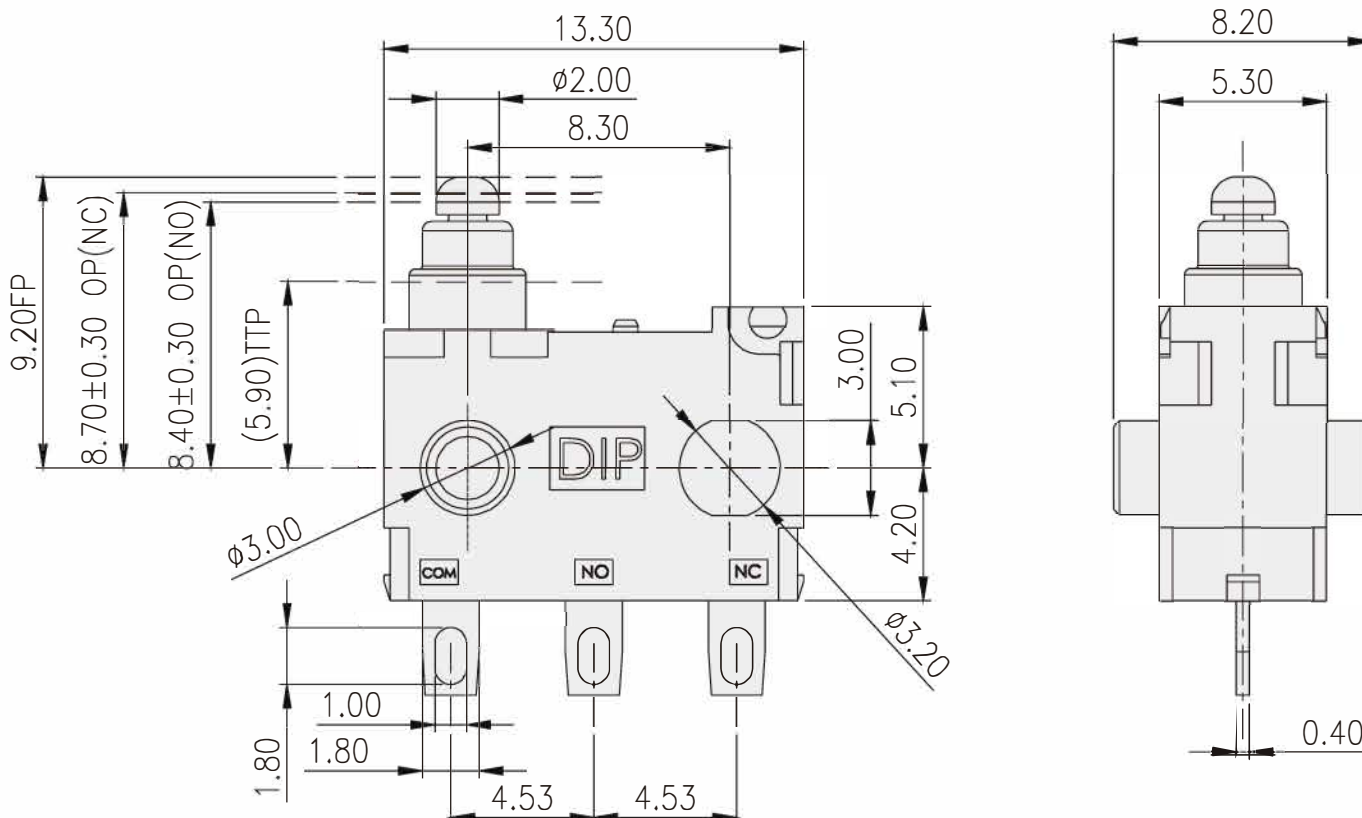
Rating: _____
G=Contact Silver Plated

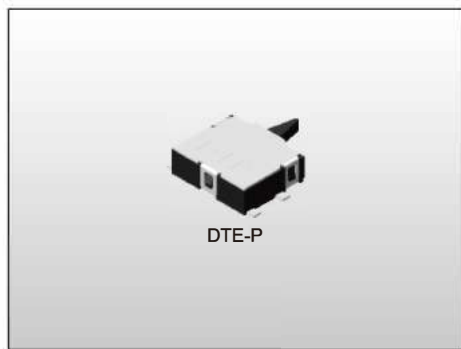
Actuator: _____
0=Pin Plunger

- Lead Free

- Terminal Type:
1=PC Board Terminal Type
2=Lead Terminal Type

Contact Form:
1=SPDT





DTE-P

FEATURES

- ※ Compact size
- ※ Two-way operating, auto return
- ※ Circuit type: Normally open

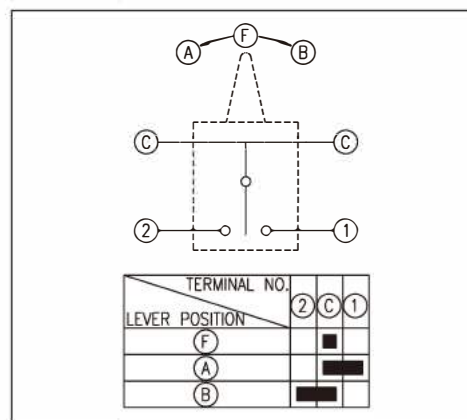
APPLICATION

- ※ Detecting opening/ closing of DSC cover
- ※ Computer peripheral
- ※ Instruments

SPECIFICATION

Contact Rating	10mA, 5V DC
Contact Resistance	500mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	30gf max.
Travel	1.5mm
Operating Life	100,000 cycles
Operating Temp.	-10°C ~ +60°C
Storage Temp.	-40°C ~ +70°C

CIRCUIT



PACKAGE

<Tape & Reel>
3800 pcs

HOW TO ORDER

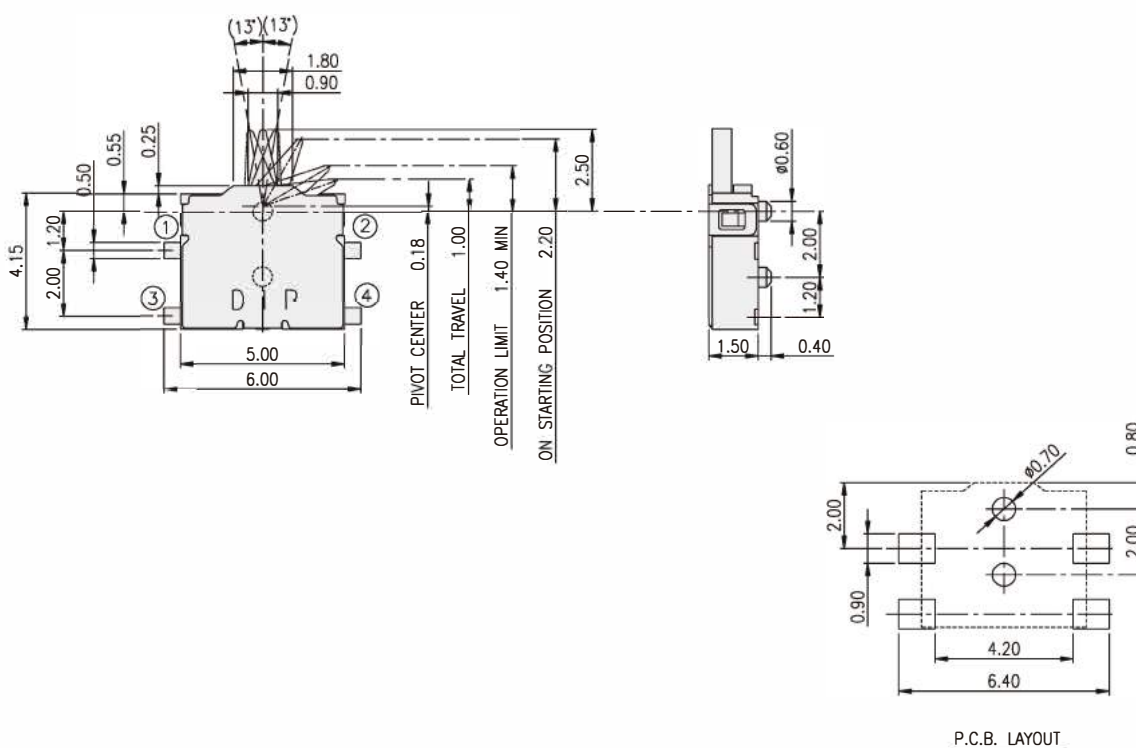
DTE-P - ☐ - ☐

With Post

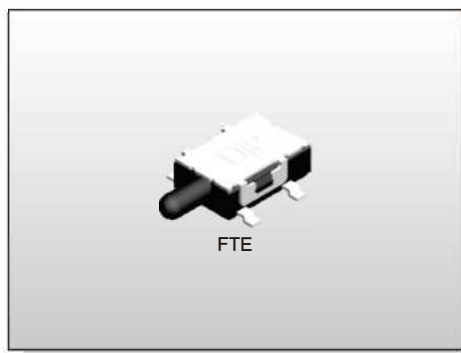
Package:
T/R=Tape & Reel

V=RoHS & Lead Free Solderable
Q=Halogen Free

DTE-P



P.C.B. LAYOUT



FEATURES

- ※Ultra-low profile with 2.0mm
- ※Sharp detection feeling

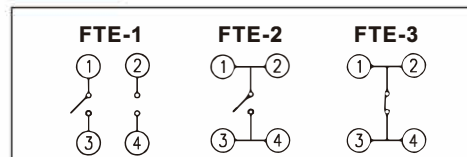
APPLICATION

- ※Detection of car audio mechanism
- ※Smoke detector
- ※Notebook

SPECIFICATION

Contact Rating	1mA, 5V DC
Contact Resistance	1Ω max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	105gf max.
Travel	2.0mm
Operating Life	100,000 cycles
Operating Temp.	-10°C ~ +60°C
Storage Temp.	-40°C ~ +85°C

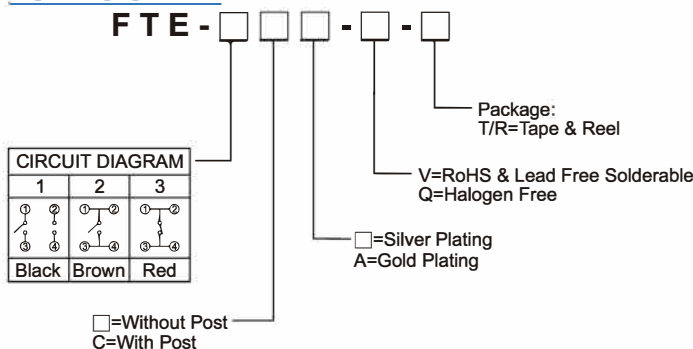
CIRCUIT



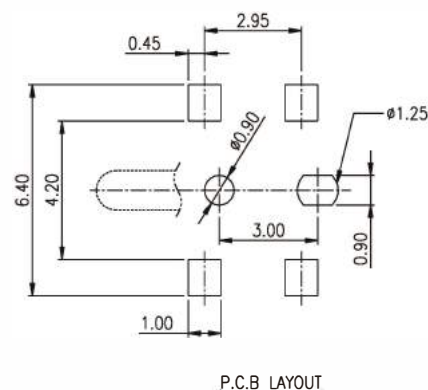
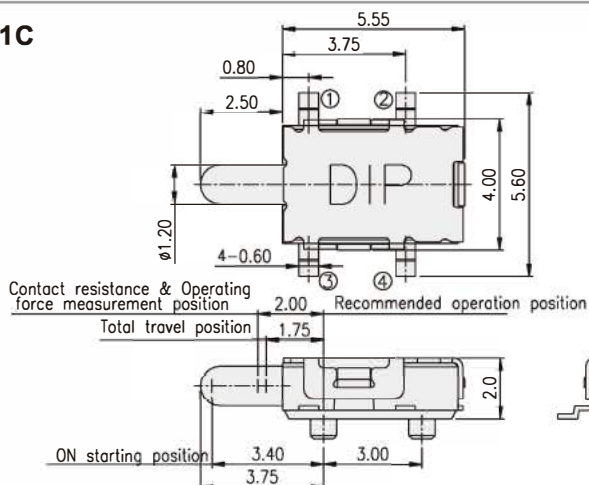
PACKAGE

<Tape & Reel>
3000 pcs

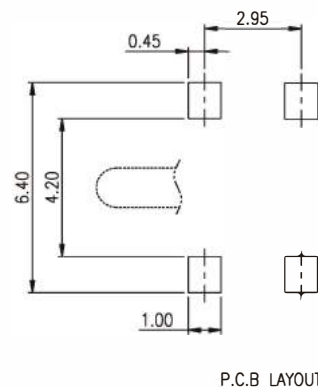
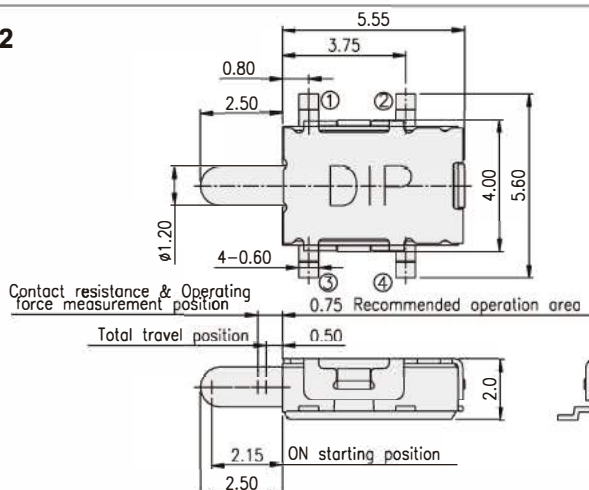
HOW TO ORDER



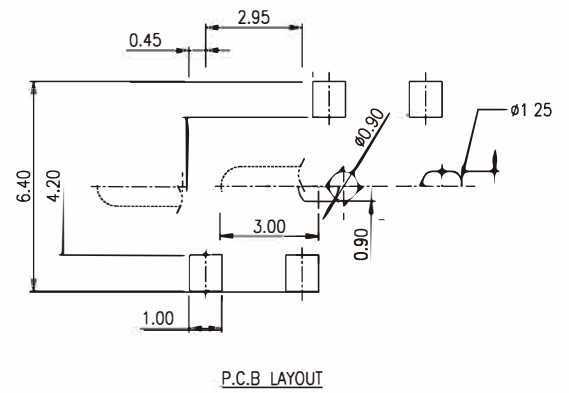
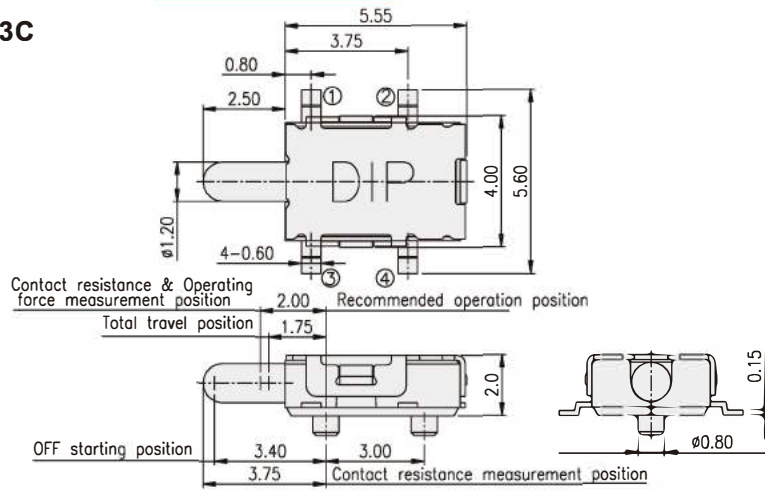
FTE-1C

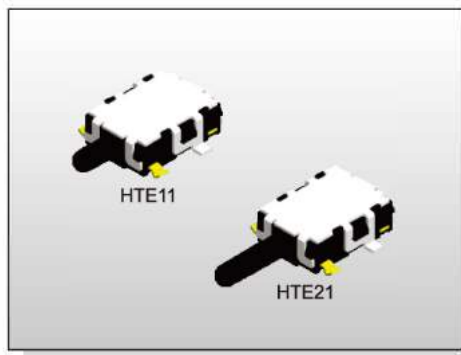


FTE-2



FTE-3C





FEATURES

- ※Ultra-low profile with 2.0mm
- ※Sharp detection feeling

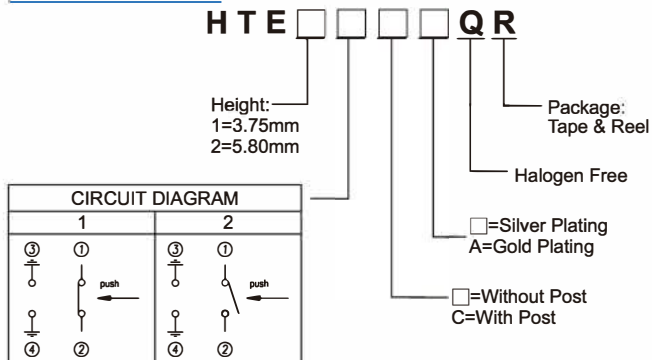
APPLICATION

- ※Detection of car audio mechanism
- ※Smoke detector
- ※Notebook
- ※Industrial application
- ※3C products

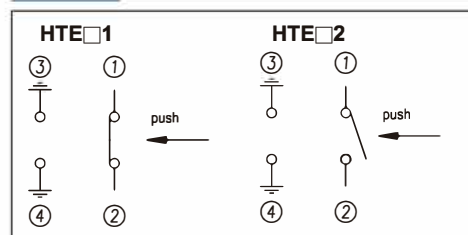
SPECIFICATION

Contact Rating	10mA, 5V DC
Contact Resistance	1Ω max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	150gf max.
Travel	2.0mm
Operating Life	100,000 cycles
Operating Temp.	-10°C ~ +60°C
Storage Temp.	-20°C ~ +70°C

HOW TO ORDER

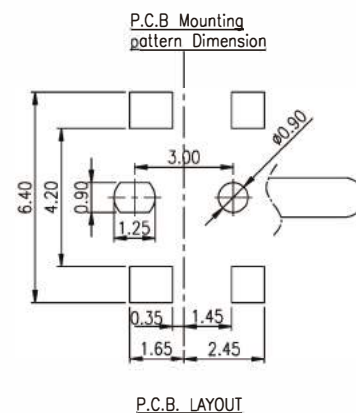
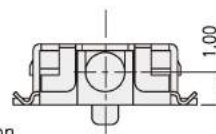
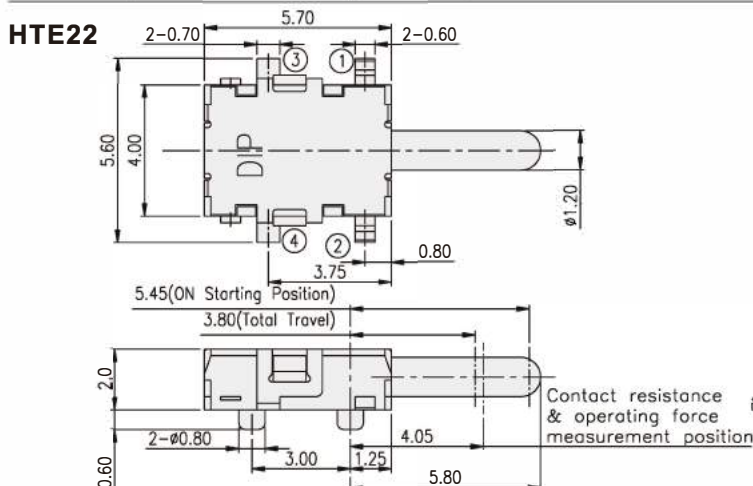
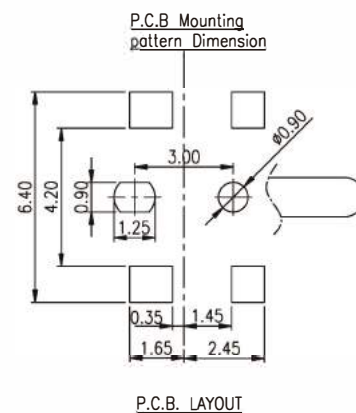
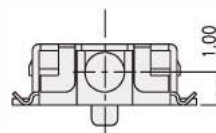
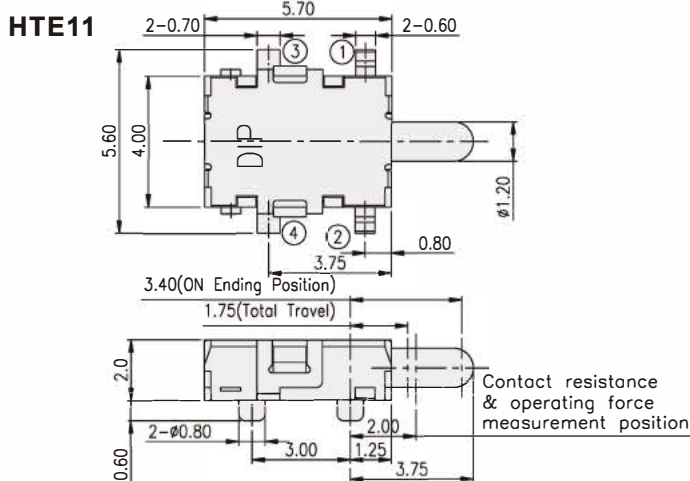


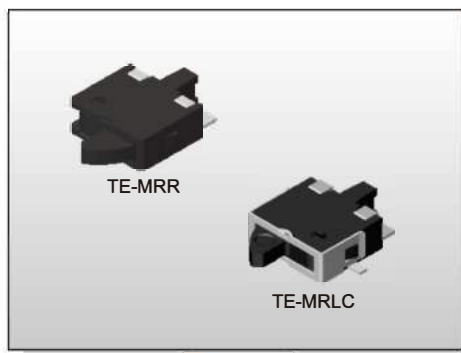
CIRCUIT



PACKAGE

<Tape & Reel>
3000 pcs





FEATURES

※Left or right operating direction

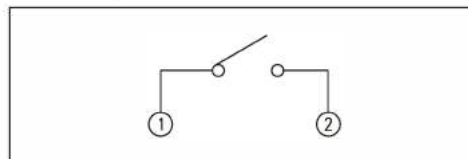
APPLICATION

※Close/open detection
※White goods
※Automotive

SPECIFICATION

Contact Rating	50mA, 20V DC
Contact Resistance	1Ω max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	50gf max.
Travel	2.15mm
Operating Life	100,000 cycles
Operating Temp.	-10°C ~ +60°C
Storage Temp.	-20°C ~ +70°C

CIRCUIT

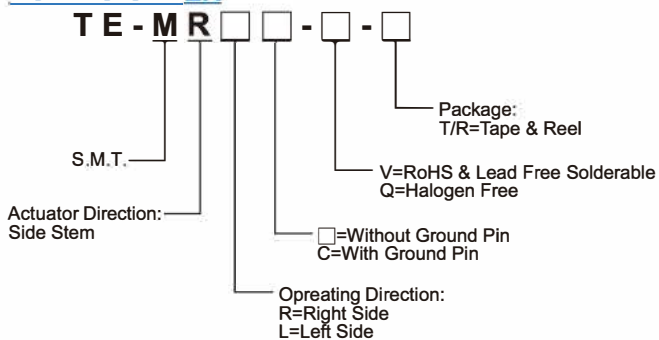


PACKAGE

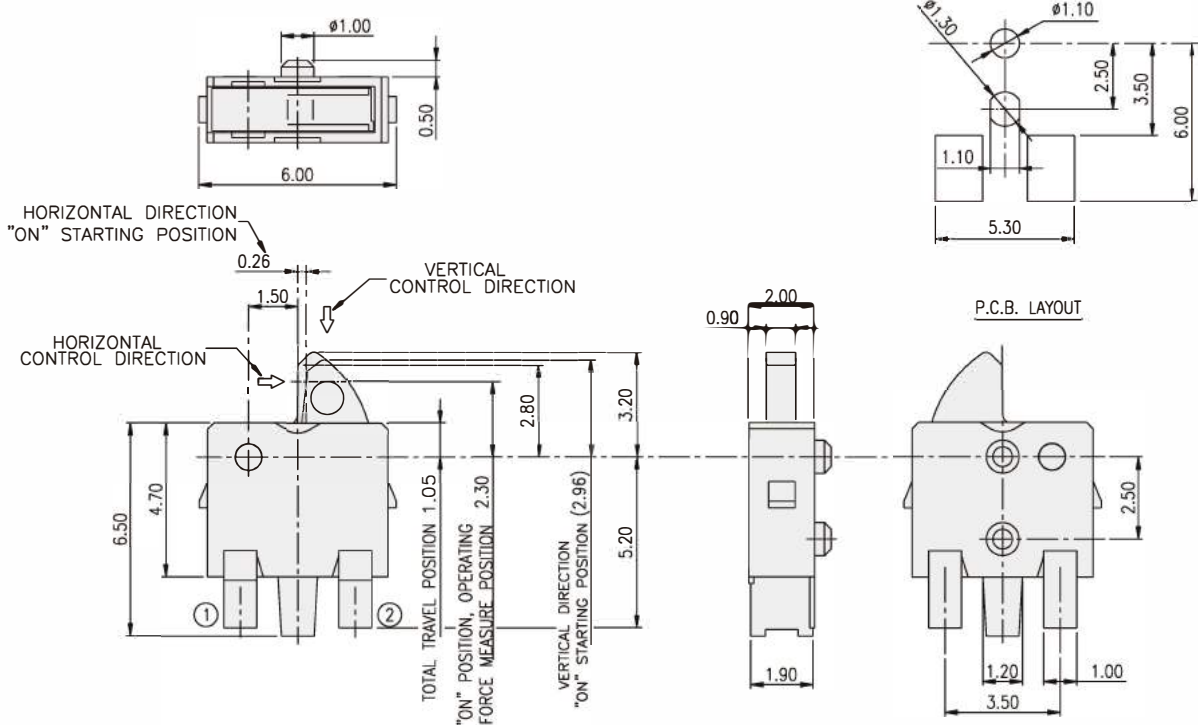
<Tape & Reel>

TE-MR□: 3000 pcs
TE-MR□C: 2000 pcs

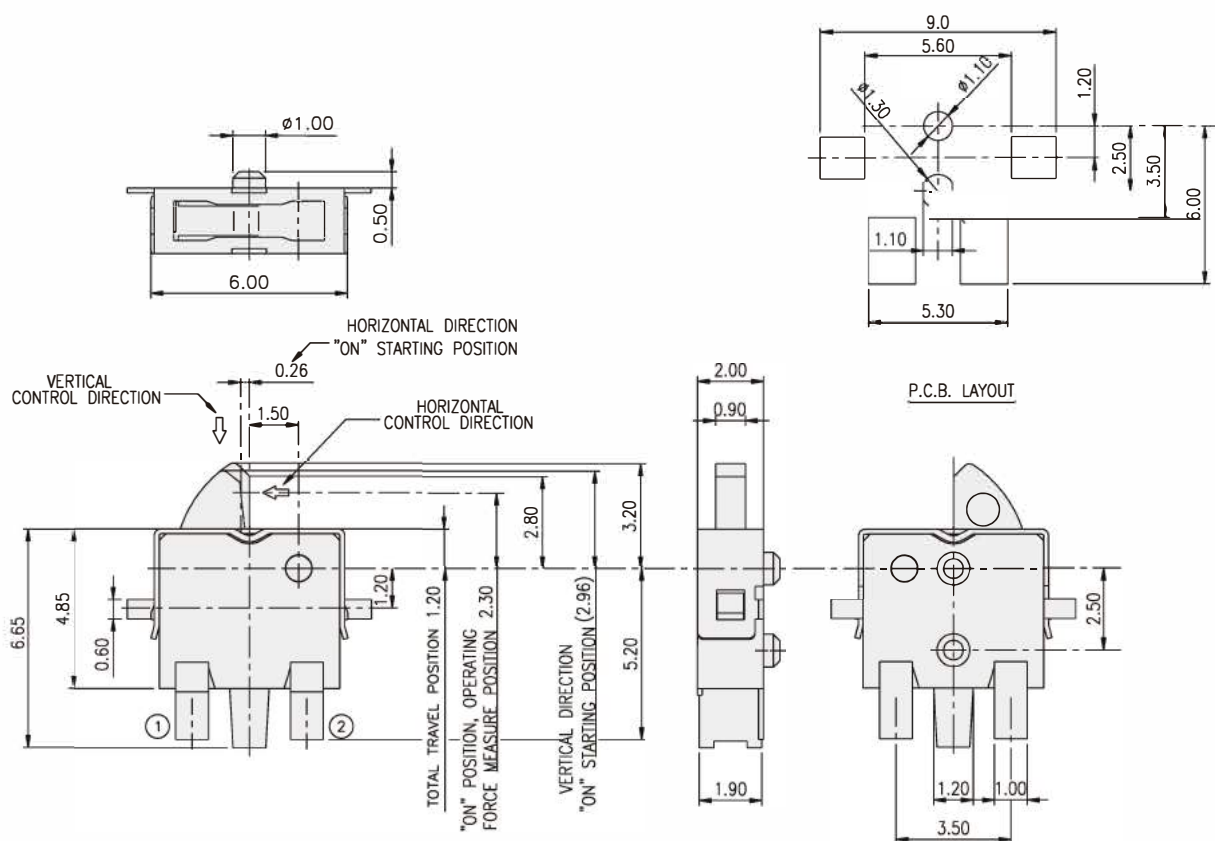
HOW TO ORDER

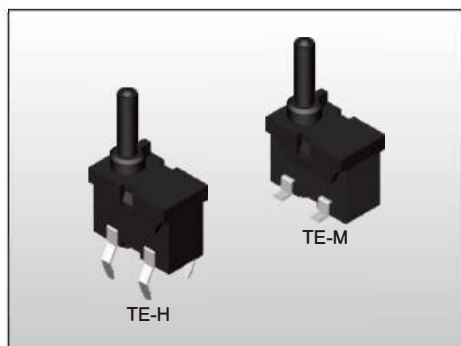


TE-MRR



TE-MRLC



**FEATURES**

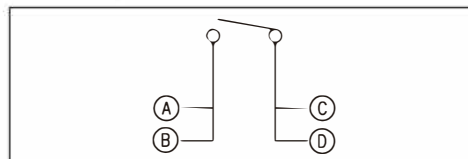
- ※ Compact size
- ※ SMT & Through hole type available
- ※ Different stem height for option

APPLICATION

- ※ DVD Players, CD-ROMs
- ※ Automotive
- ※ Telecommunication

SPECIFICATION

Contact Rating	5mA, 5V DC
Contact Resistance	500mΩ max.
Insulation Resistance	100MΩ min. 250V DC
Dielectric Strength	250V AC/1 minute
Operating Force	35gf max.
Travel	2mm
Operating Life	50,000 cycles
Operating Temp.	-20°C ~ +70°C
Storage Temp.	-30°C ~ +80°C

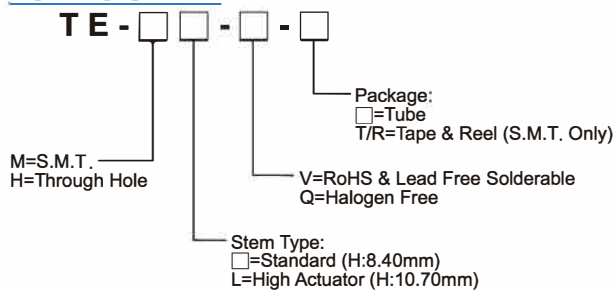
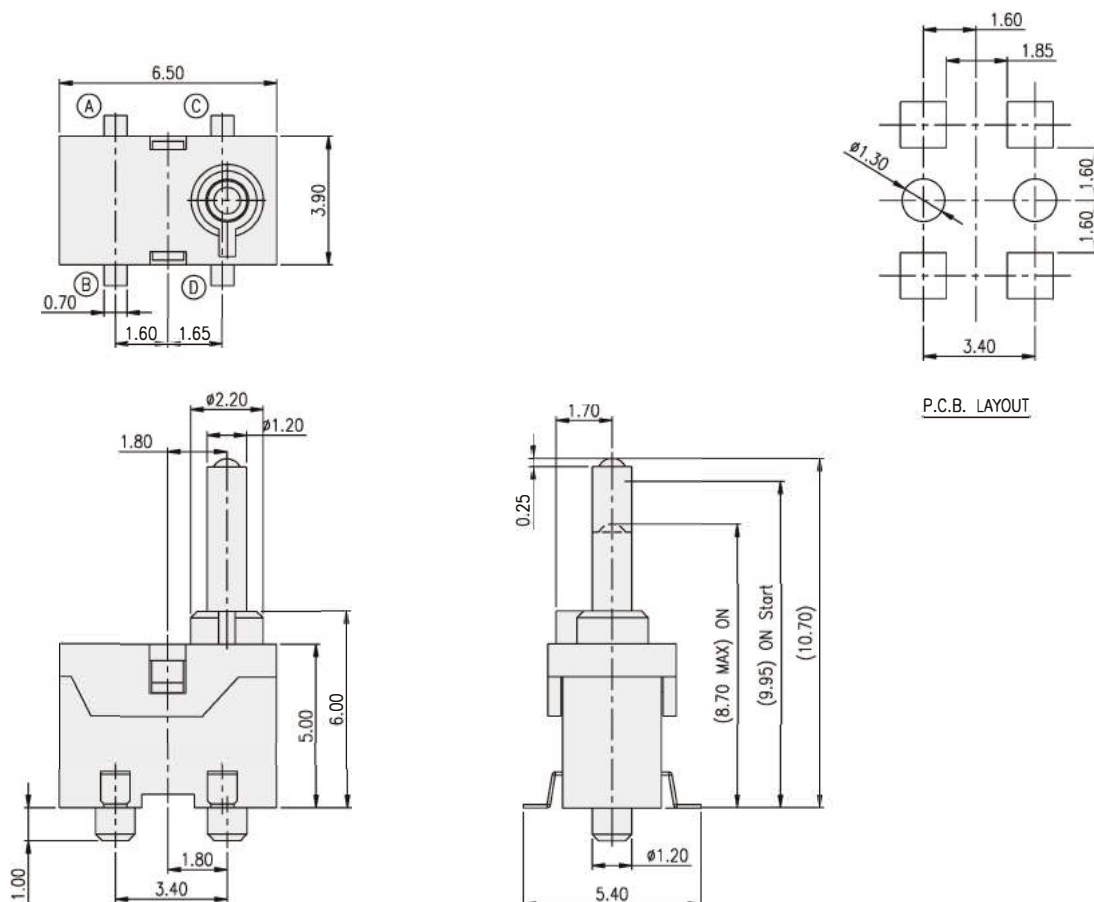
CIRCUIT**PACKAGE****<Tube>**

72 pcs

<Tape & Reel>

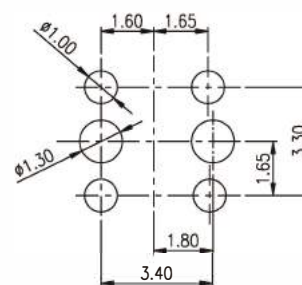
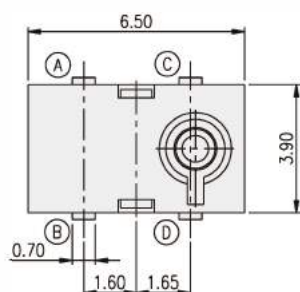
TE-M: 500 pcs

TE-ML: 400 pcs

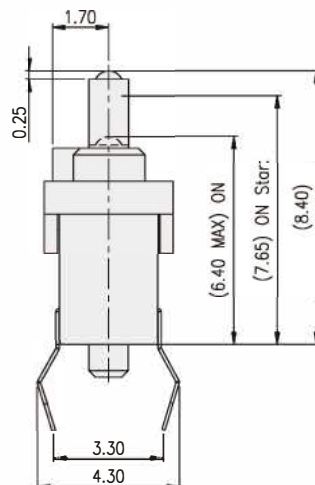
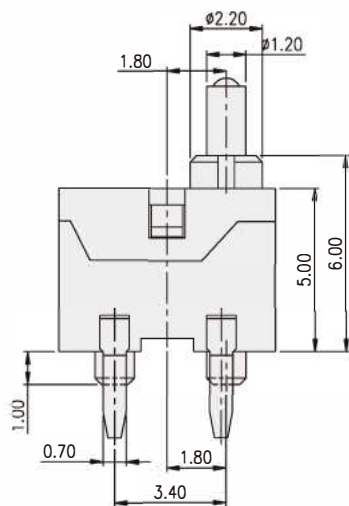
HOW TO ORDER**TE-ML**

P.C.B. LAYOUT

TE-H



P.C.B. LAYOUT





JTE

FEATURES

- ※ Guiding post offers easy orientation
- ※ Long travel 2.5mm
- ※ 100,000 operating life cycles

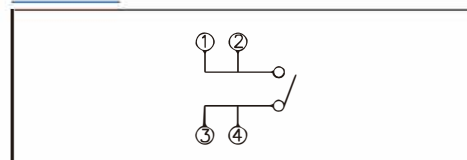
APPLICATION

- ※ Consumer electronics
- ※ Medical devices
- ※ Open/close detection
- ※ NB power off function

SPECIFICATION

Contact Rating	10mA, 5V DC
Contact Resistance	1Ω max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	36gf max.
Travel	1.3mm
Operating Life	100,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

CIRCUIT



PACKAGE

<Tape & Reel>
1800 pcs

HOW TO ORDER

JTE 1 □ QR

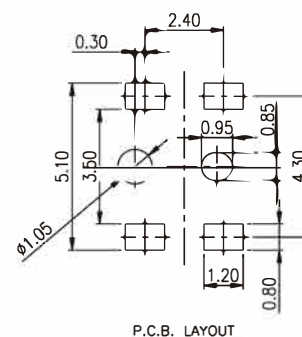
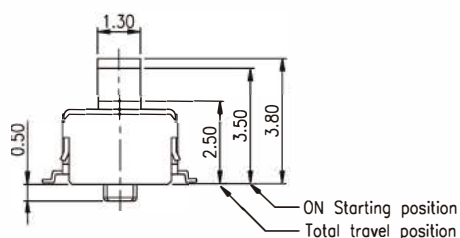
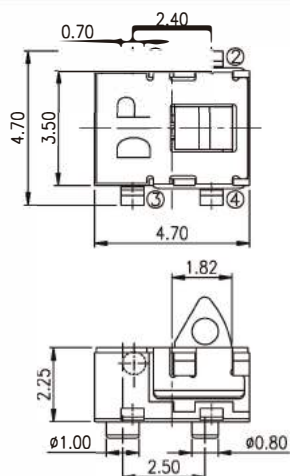
Height: 3.80mm

Package: Tape & Reel

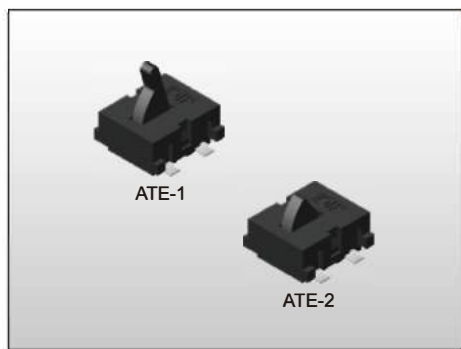
Halogen Free

□ = Without Post
C = With Post

JTE



P.C.B. LAYOUT



FEATURES

- ※Guiding post offers easy orientation
- ※3.80 & 5.30mm stem height available

APPLICATION

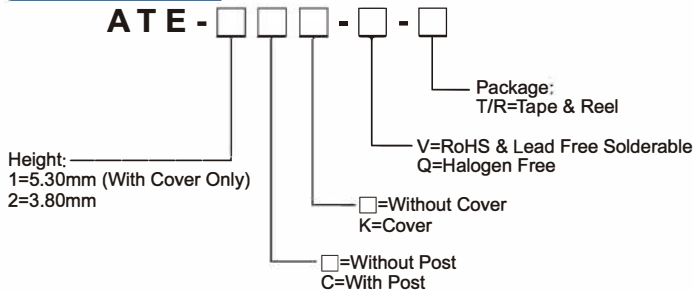
- ※Smoke detector
- ※Detection of disc loading

SPECIFICATION

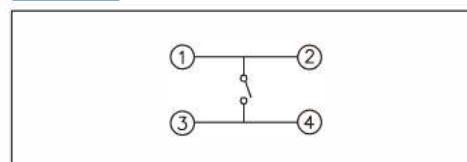
Contact Rating	1mA, 5V DC
Contact Resistance	1Ω max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	40gf max.
Travel	3.9mm max. Stem Height 5.3mm 2.6mm max. Stem Height 3.8mm
Operating Life	100,000 cycles
Operating Temp.	-10°C ~ +60°C
Storage Temp.	-20°C ~ +70°C

HOW TO ORDER

ATE-



CIRCUIT



PACKAGE

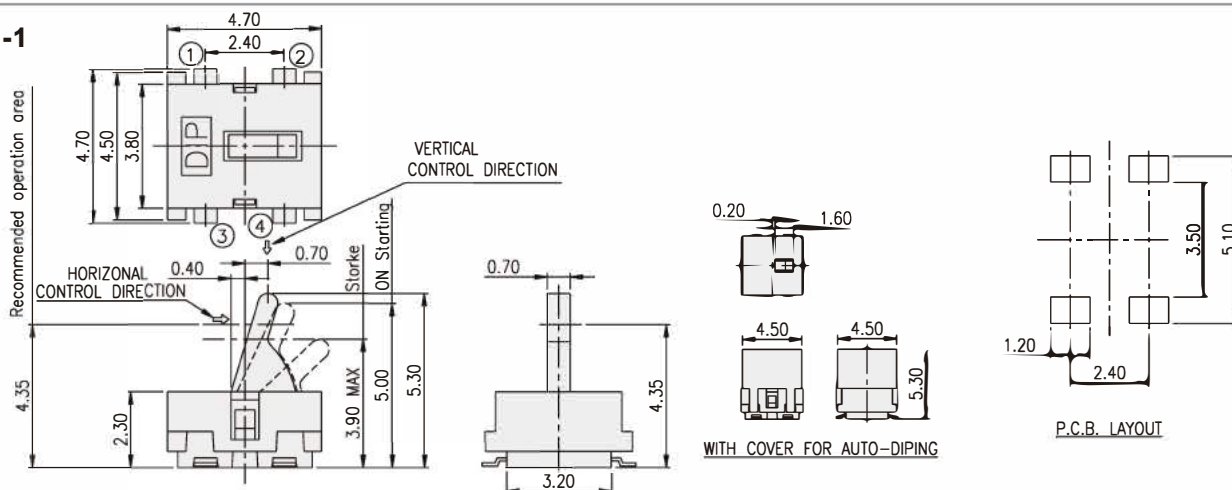
<Tape & Reel>

ATE-1□□: 900 pcs

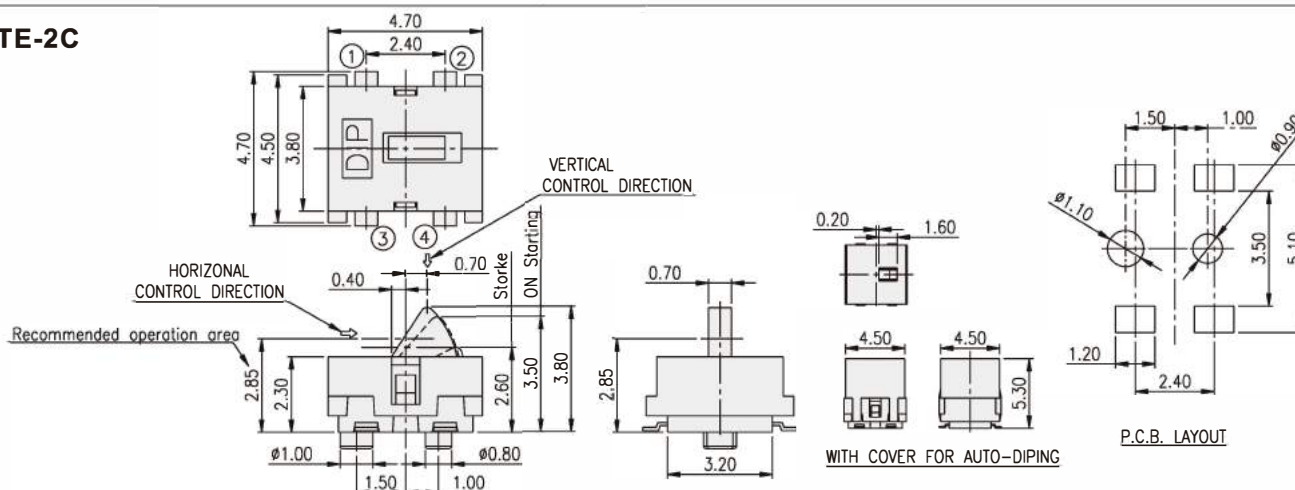
ATE-2 ☐ K: 900 pcs

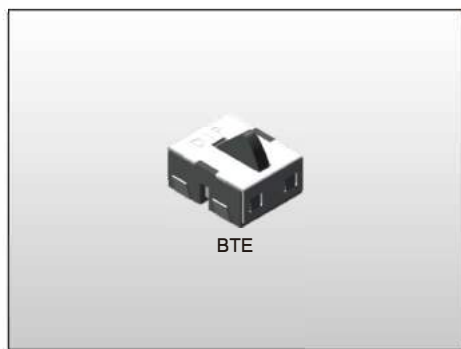
ATE-2□: 1200 pcs

ATE-1



ATE-2C





BTE

FEATURES

- ※ Guiding post offers easy orientation
- ※ Ultra-low profile

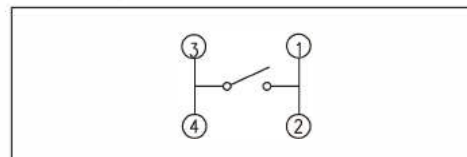
APPLICATION

- ※ Notebook
- ※ Smart phone
- ※ Sensor

SPECIFICATION

Contact Rating	1mA, 5V DC
Contact Resistance	2Ω max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	50gf max.
Travel	1.03mm
Operating Life	100,000 cycles
Operating Temp.	-10°C ~ +60°C
Storage Temp.	-20°C ~ +70°C

CIRCUIT



PACKAGE

<Tape & Reel>
2600 pcs

HOW TO ORDER

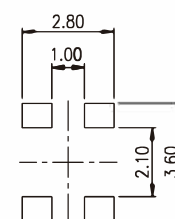
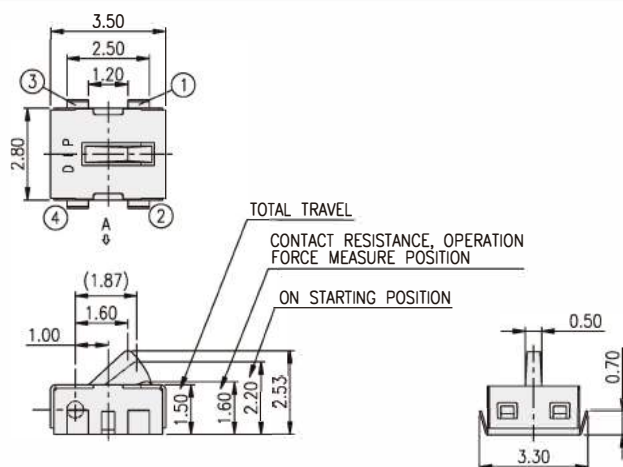
BTE - □ - Q - □

Package:
T/R=Tape & Reel

Halogen Free

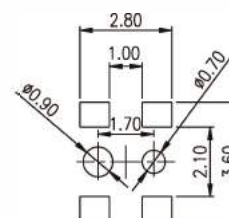
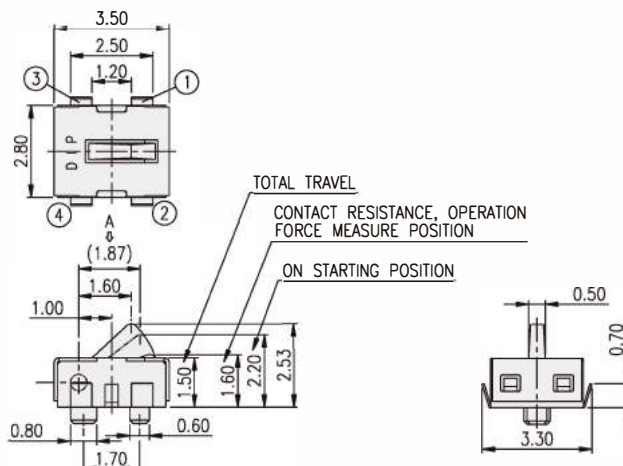
□=Without Post
P=Post

BTE

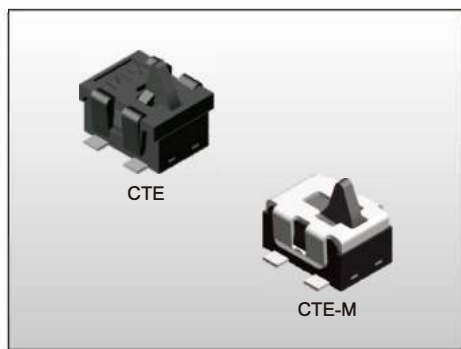


P.C.B. LAYOUT

BTE-P



P.C.B. LAYOUT



FEATURES

- ※ Guiding post offers easy orientation
- ※ Operating force: 35gf max.

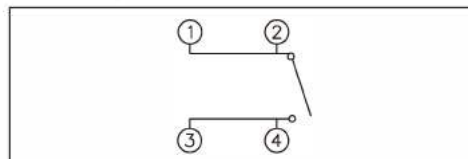
APPLICATION

- ※ Open/close detection
- ※ Notebook
- ※ Audio device

SPECIFICATION

Contact Rating	0.1mA~100mA, 20mV~5V DC
Contact Resistance	500mΩ max.
Insulation Resistance	100MΩ min. 250V DC
Dielectric Strength	250V AC/1 minute
Operating Force	35gf max.
Travel	1.05mm
Operating Life	80,000 cycles
Operating Temp.	-15°C ~ +70°C
Storage Temp.	-40°C ~ +85°C

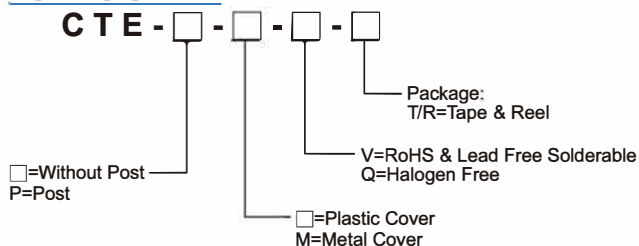
CIRCUIT



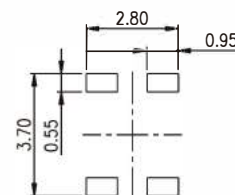
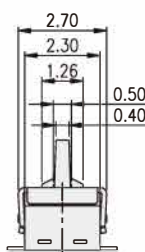
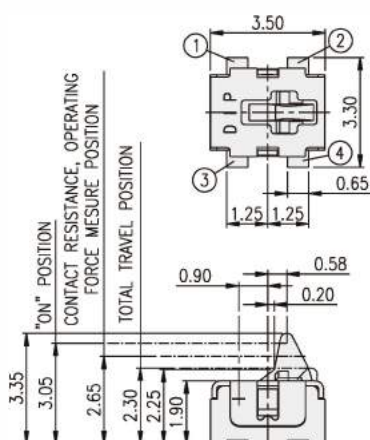
PACKAGE

<Tape & Reel>
1800 pcs

HOW TO ORDER

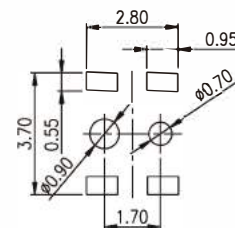
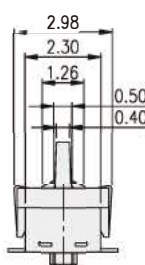
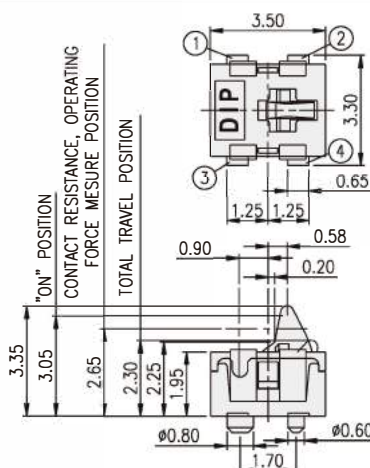


CTE-M

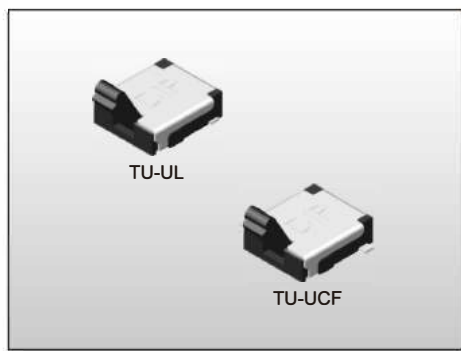


P.C.B. LAYOUT

CTE-P



P.C.B. LAYOUT

**FEATURES**

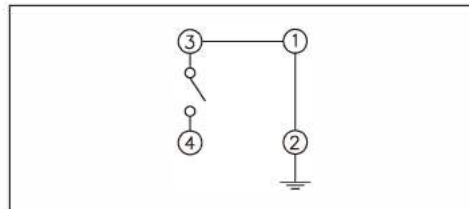
- ※Ultra-thin with height 1.2 mm
- ※Flat & bending terminal available

APPLICATION

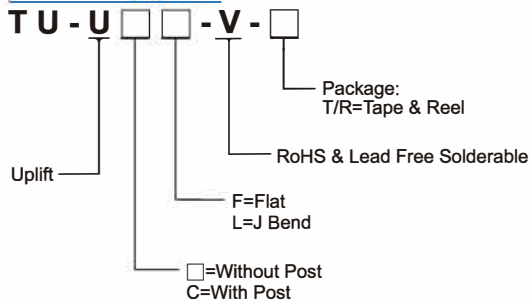
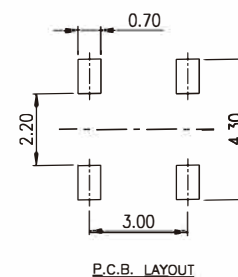
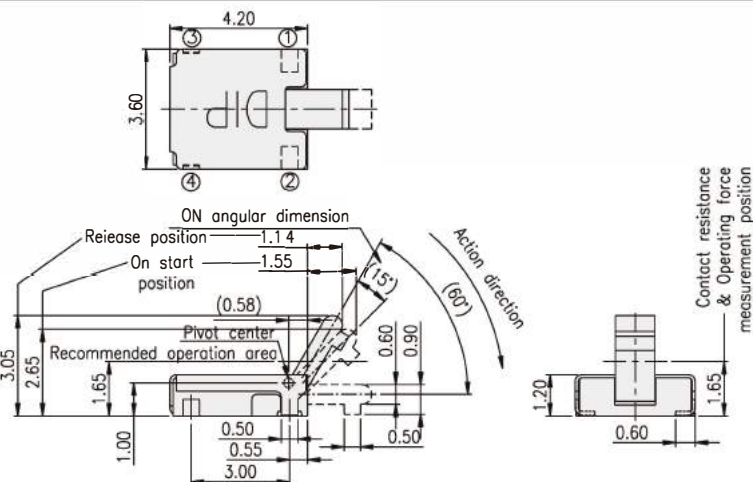
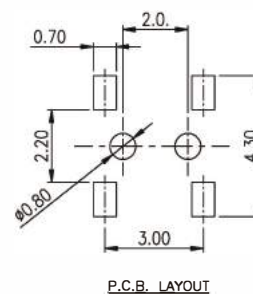
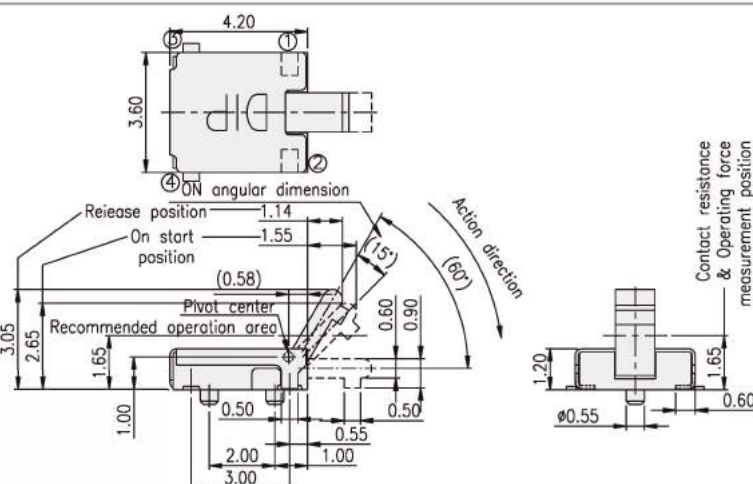
- ※Detection of video cameras
- ※Open/close detection

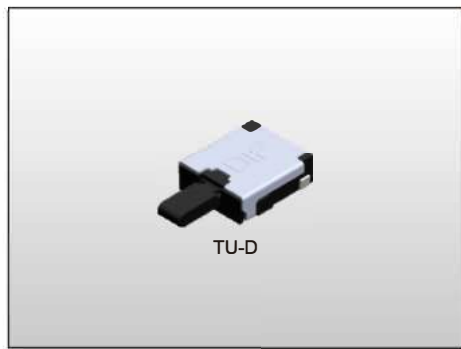
SPECIFICATION

Contact Rating	50uA, 3V DC to 10mA, 5V DC
Contact Resistance	1Ω max.
Insulation Resistance	100MΩ min.
Dielectric Strength	100V AC/1 minute
Operating Force	40gf max.
Travel	60°
Operating Life	50,000 cycles
Operating Temp.	-10°C ~ +60°C
Storage Temp.	-20°C ~ +70°C

CIRCUIT**PACKAGE**

<Tape & Reel>
2300 pcs

HOW TO ORDER**TU-UL****TU-UCF**



TU-D

FEATURES

- ※Flat & bending terminals available
- ※50,000 operation life cycles

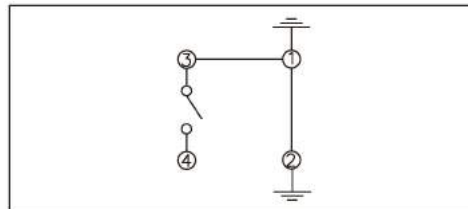
APPLICATION

- ※Consumer electronics
- ※Detection of video cameras
- ※Open/close detection
- ※Safety control device
- ※Heat energy regulator

SPECIFICATION

Contact Rating	50uA, 3V DC to 10mA, 5V DC
Contact Resistance	1Ω max.
Insulation Resistance	100MΩ min.
Dielectric Strength	100V AC/1 minute
Operating Force	40gf max.
Travel	60°
Operating Life	50,000 cycles
Operating Temp.	-10°C ~ +60°C
Storage Temp.	-20°C ~ +70°C

CIRCUIT

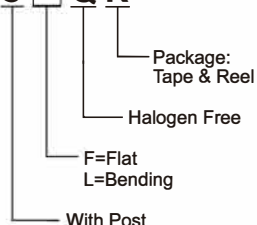


PACKAGE

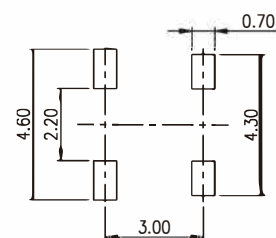
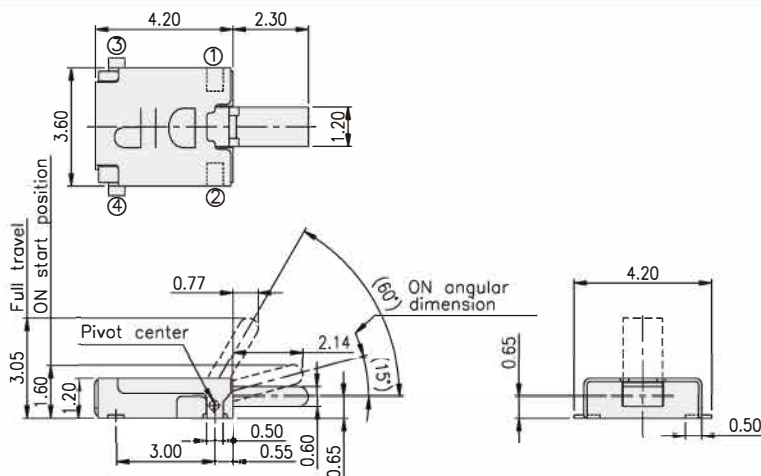
<Tape & Reel>
3500 pcs

HOW TO ORDER

T U - D C Q R

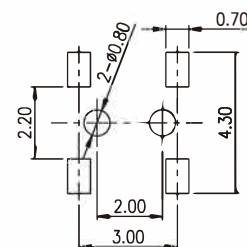
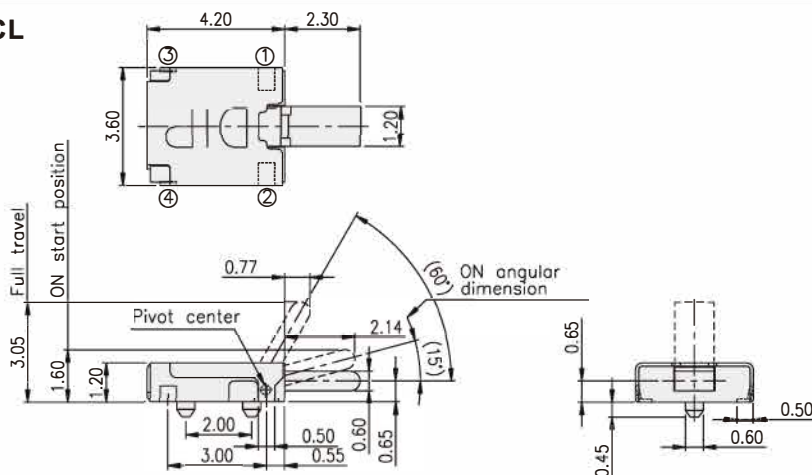


TU-DF

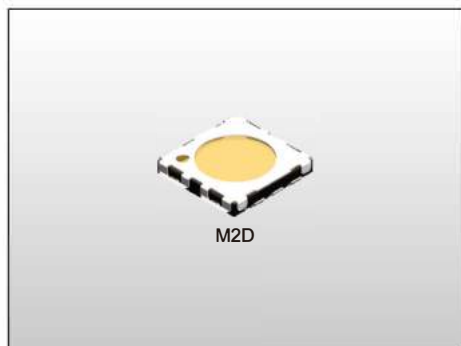


P.C.B. LAYOUT

TU-DCL



P.C.B. LAYOUT



M2D

FEATURES

- ※Double action
- ※Compact-sized 4.1x4.3mm
- ※0.6mm height

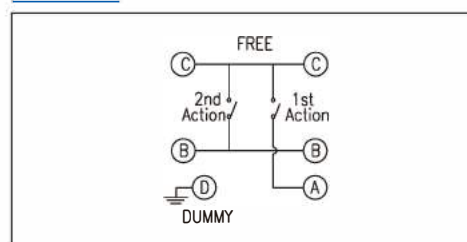
APPLICATION

- ※Camera
- ※Mobile phone & peripherals

SPECIFICATION

Contact Rating	10 μ A, 2V DC min. 20mA, 15V DC max.
Contact Resistance	500m Ω max.
Insulation Resistance	100M Ω min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	90 $\pm$ 40gf, 1st 190 $\pm$ 60gf, 2nd
Travel	0.15mm, 1st 0.30mm, 2nd
Operating Life	100,000 cycles
Operating Temp.	-20 $^{\circ}$ C ~ +70 $^{\circ}$ C
Storage Temp.	-40 $^{\circ}$ C ~ +85 $^{\circ}$ C

CIRCUIT

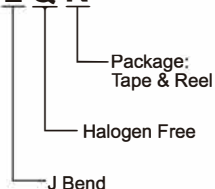


PACKAGE

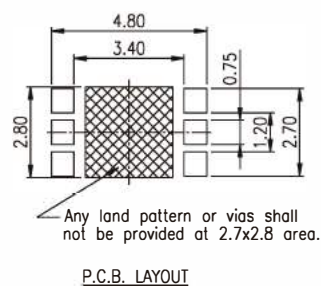
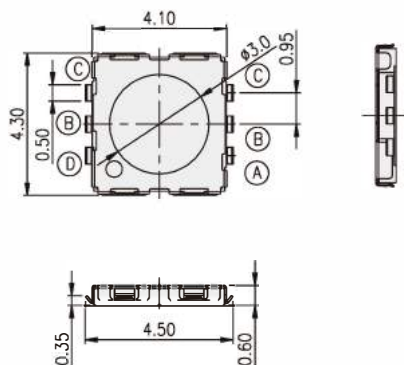
<Tape & Reel>
4500 pcs

HOW TO ORDER

M 2 D L Q R



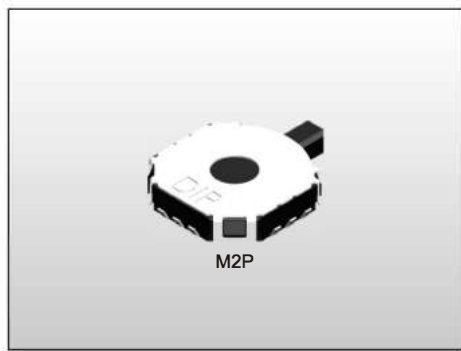
M2D



P.C.B. LAYOUT

MULTI FUNCTION SWITCH M2P SERIES

**Double Action
& Lever Type**



FEATURES

- ※Double action with lever
- ※1.4mm height

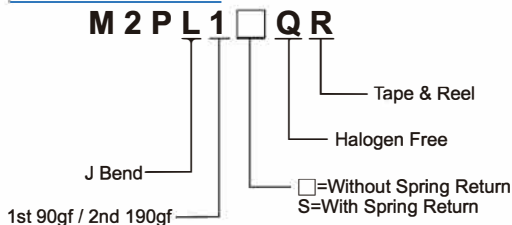
APPLICATION

- ※Camera
- ※Mobile phone & peripherals

SPECIFICATION

Contact Rating	01mA, 3V DC~10mA, 5V DC
Contact Resistance	1Ω max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	100V AC/1 minute
Operating Force	Lever:70gf.cm MAX Push:90±40gf, 1st 190±60gf, 2nd
Travel	Lever:8°, 1st 20°, 2nd Push:0.15mm, 1st 0.30mm, 2nd
Operating Life	50,000 cycles
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +85°C

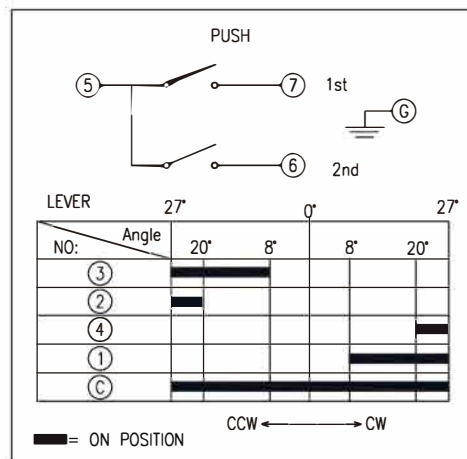
HOW TO ORDER



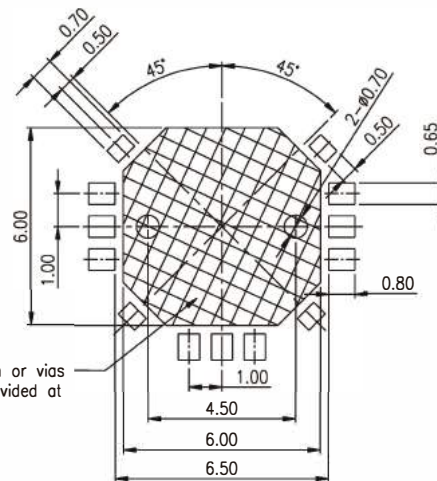
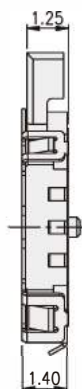
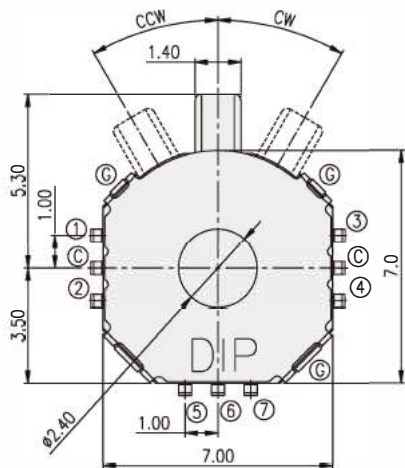
PACKAGE

<Tape & Reel>
2300 pcs

CIRCUIT



M2P



Any land pattern or vias shall not be provided at 6x6 area.

P.C.B. LAYOUT

MULTI FUNCTION SWITCH PL3 SERIES

**Push & Lever
Type**



PL3

FEATURES

※ Multi function (Push & Lever)

APPLICATION

※ Remote controls
※ Volume control for variety of applications

SPECIFICATION

Contact Rating	10mA, 5V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	70±50gf, Lever(CW, CCW) 200±100gf, Center push
Operating Life	100,000 cycles
Operating Temp.	-10°C ~ +60°C
Storage Temp.	-30°C ~ +80°C

HOW TO ORDER

P L 3 - [] C - [] []

Package:
T/R=Tape & Reel

V=RoHS & Lead Free Solderable
Q=Halogen Free

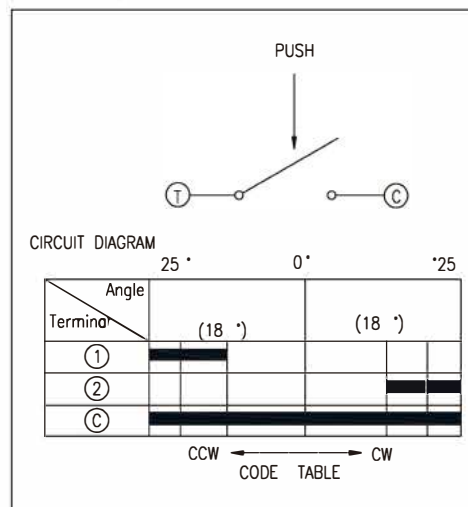
With Click Feeling

Actuator:
A=Mounting Knob Integrated
B=Mounting Knob

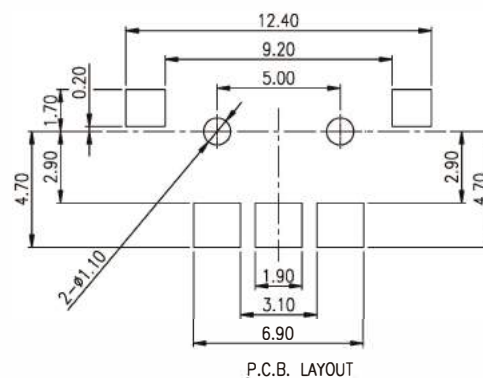
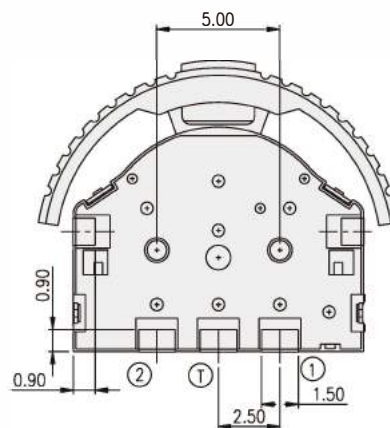
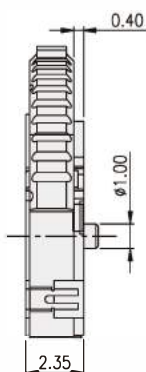
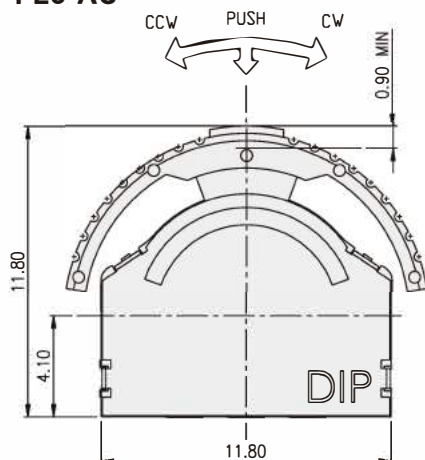
PACKAGE

<Tape & Reel>
900 pcs

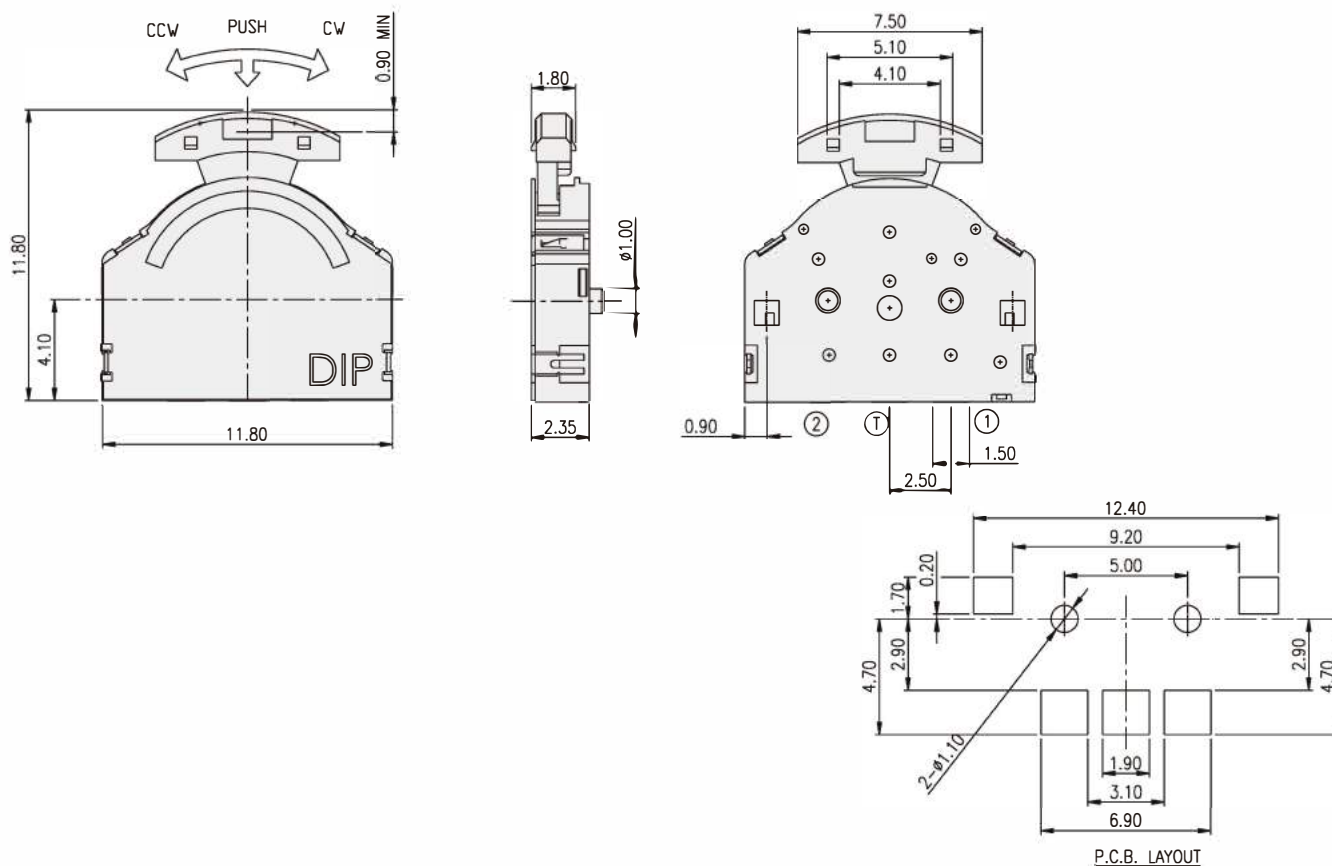
CIRCUIT

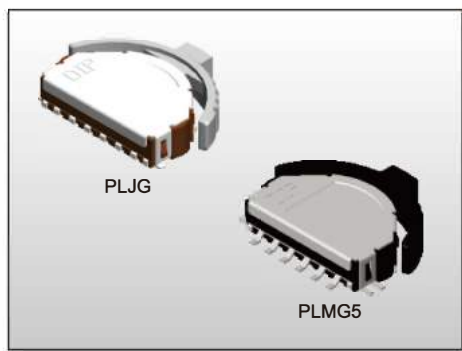


PL3-AC



MULTI FUNCTION SWITCH

PL3-BC



FEATURES

※Multi function (Push & Lever)

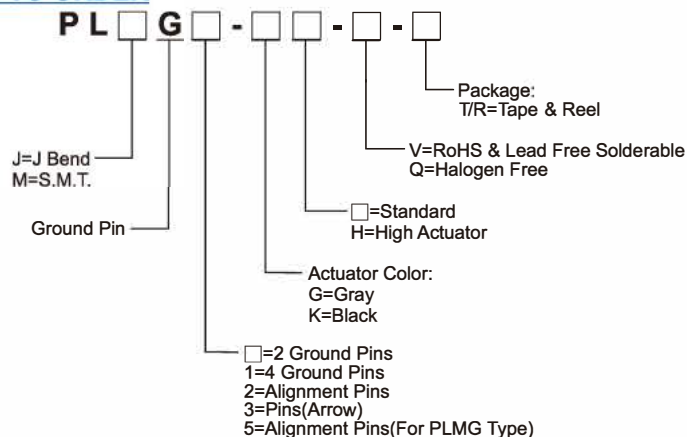
APPLICATION

※Remote controls
※Volume control for variety of applications
※TV

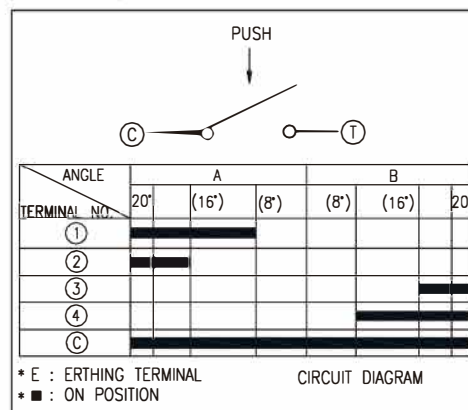
SPECIFICATION

Contact Rating	10mA, 5V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	100V AC/1 minute
Operating Force	40±20gf, Return actuator 150+100/-50gf, Center push direction
Operating Life	100,000 cycles
Operating Temp.	-10°C ~ +70°C
Storage Temp.	-25°C ~ +85°C

HOW TO ORDER



CIRCUIT



PACKAGE

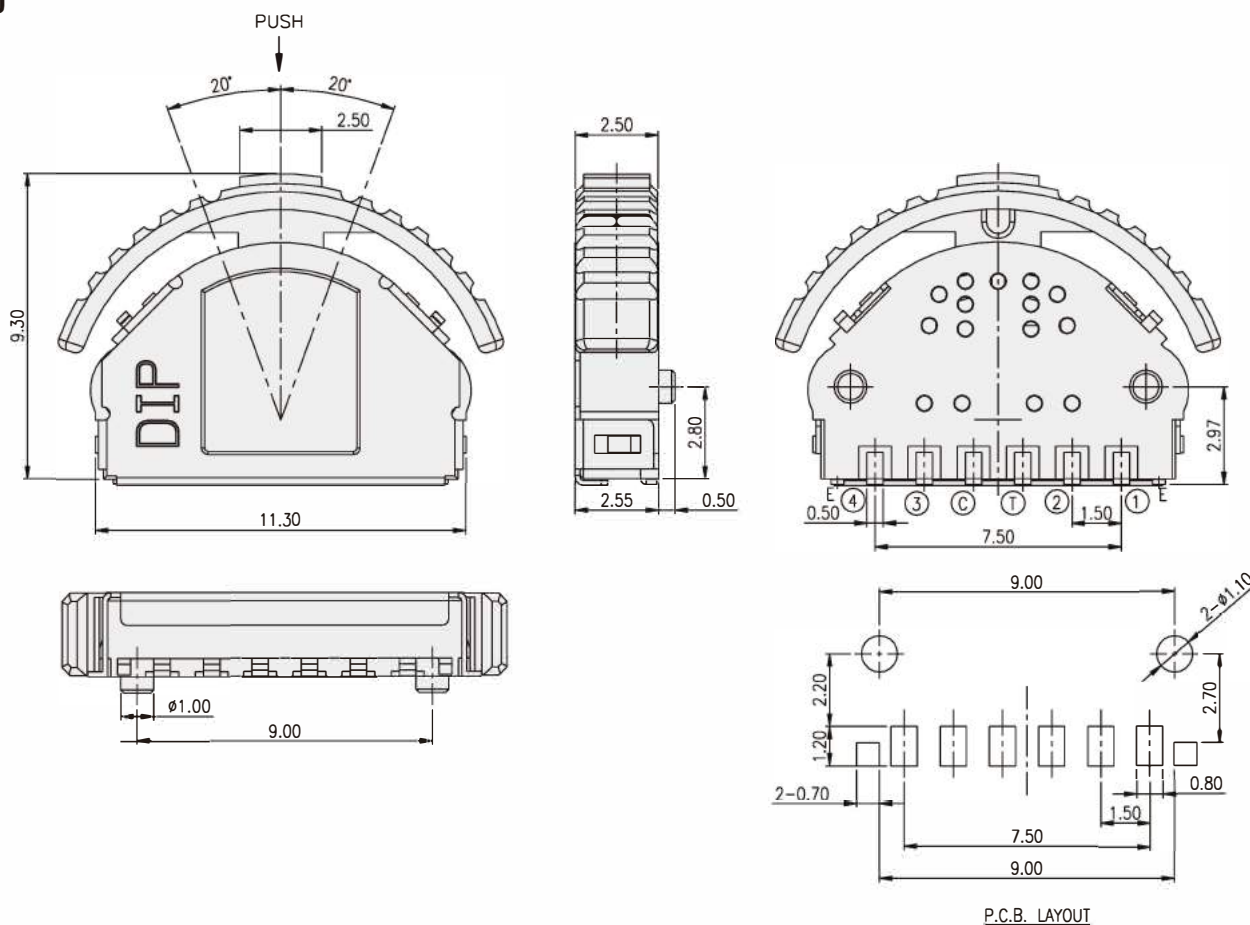
<Tape & Reel>

PLJ(G), PLJG1: 1000 pcs

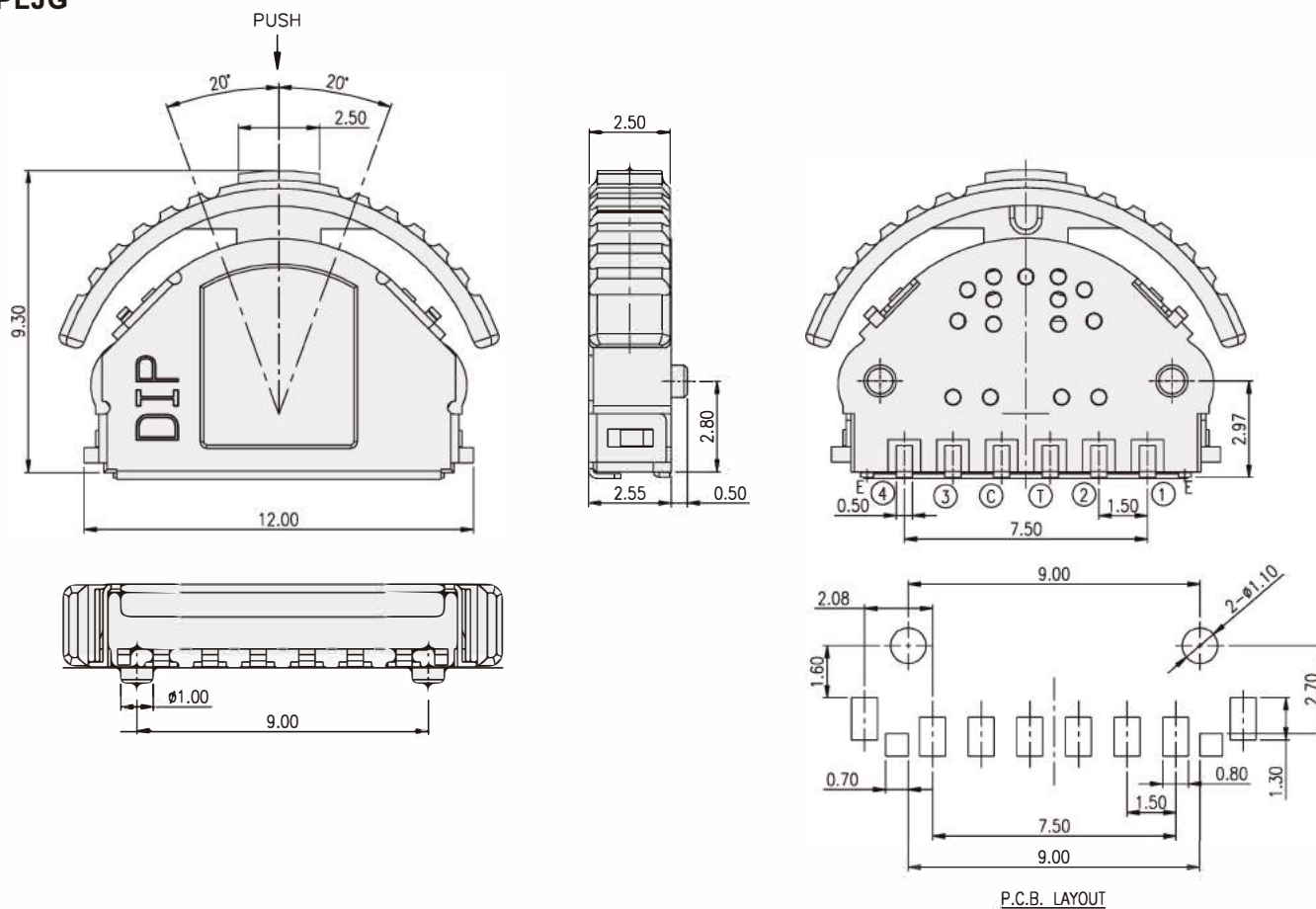
PLJG(2)(3): 800 pcs

PLMG5: 750 pcs

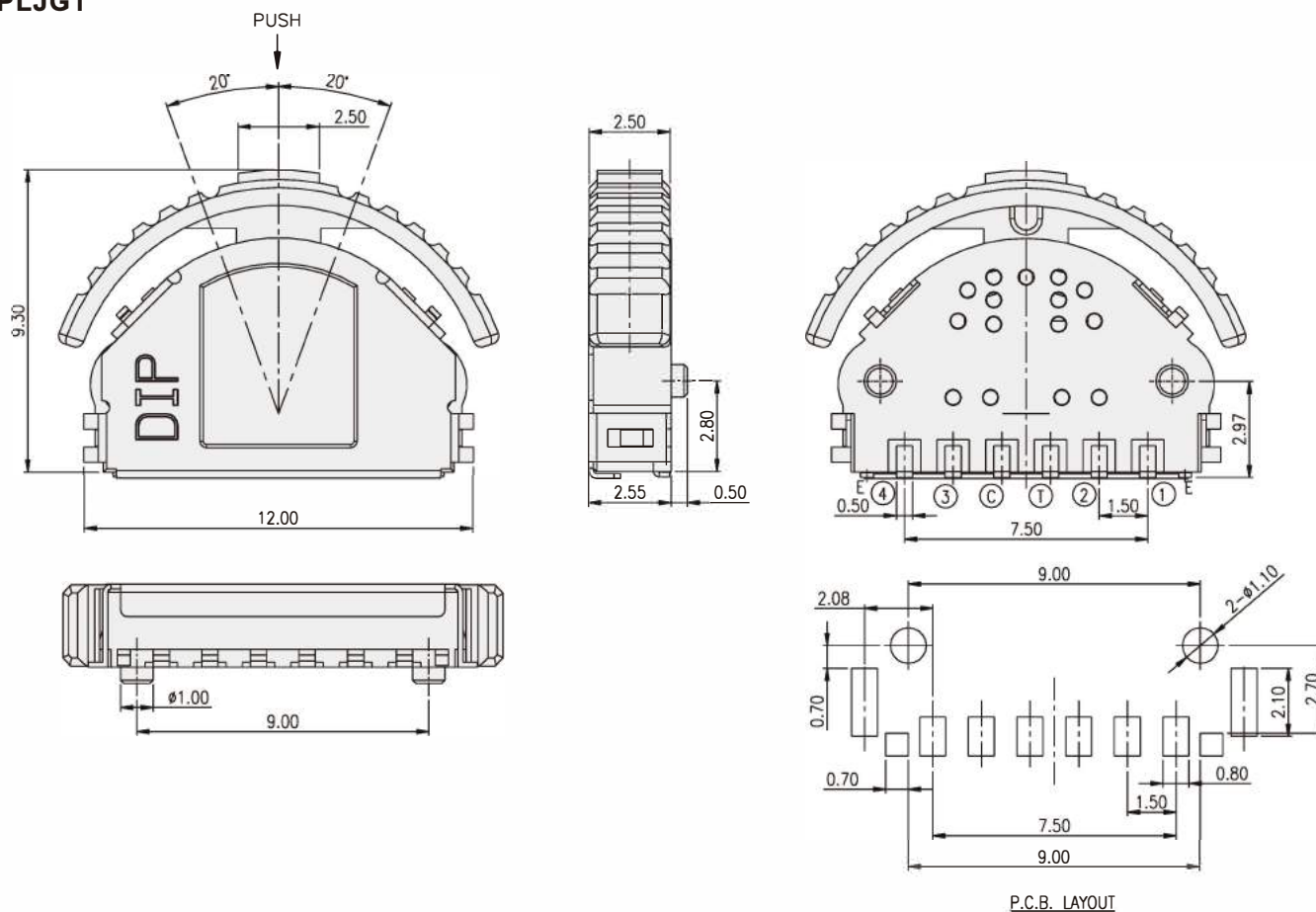
PLJ



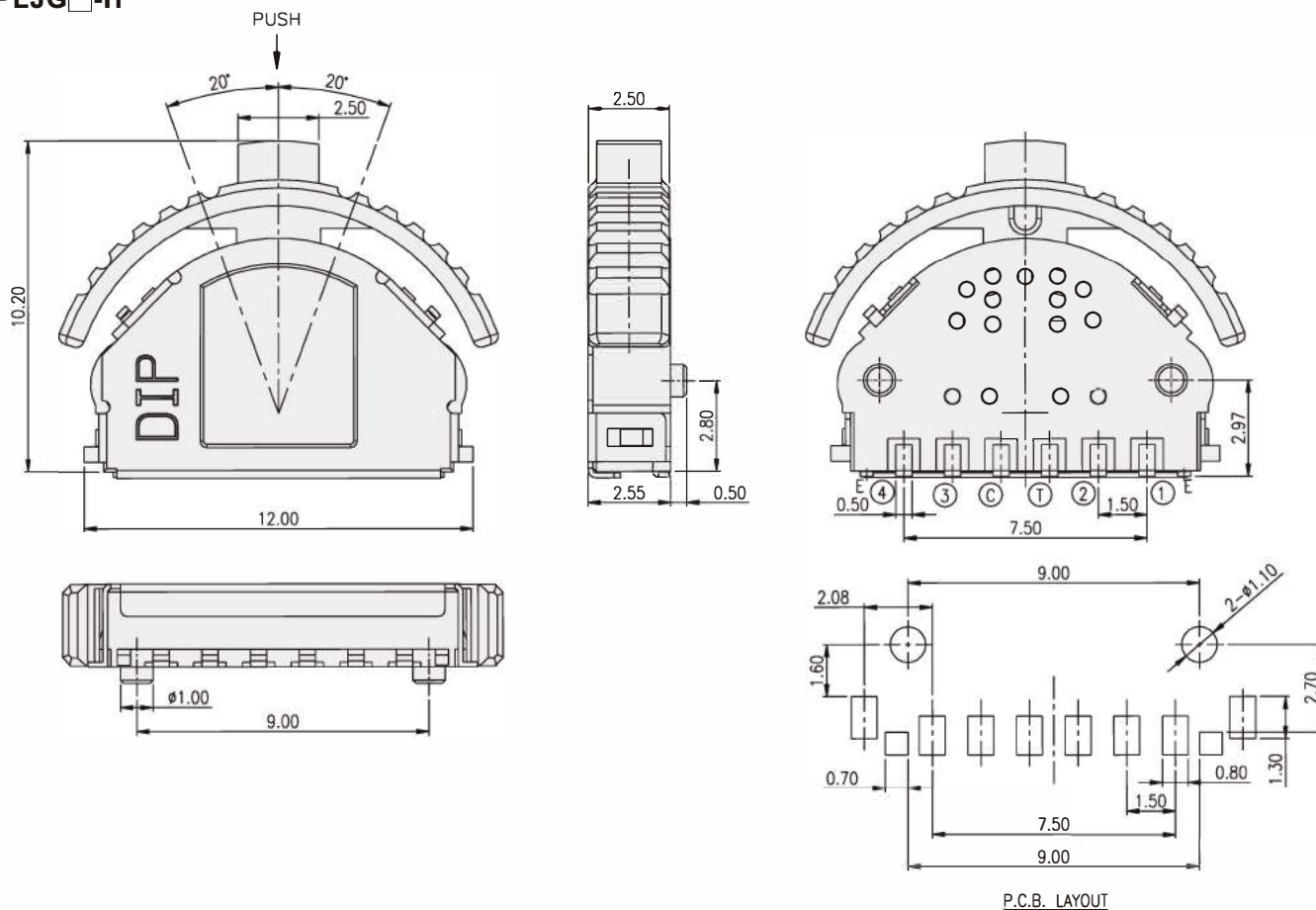
PLJG



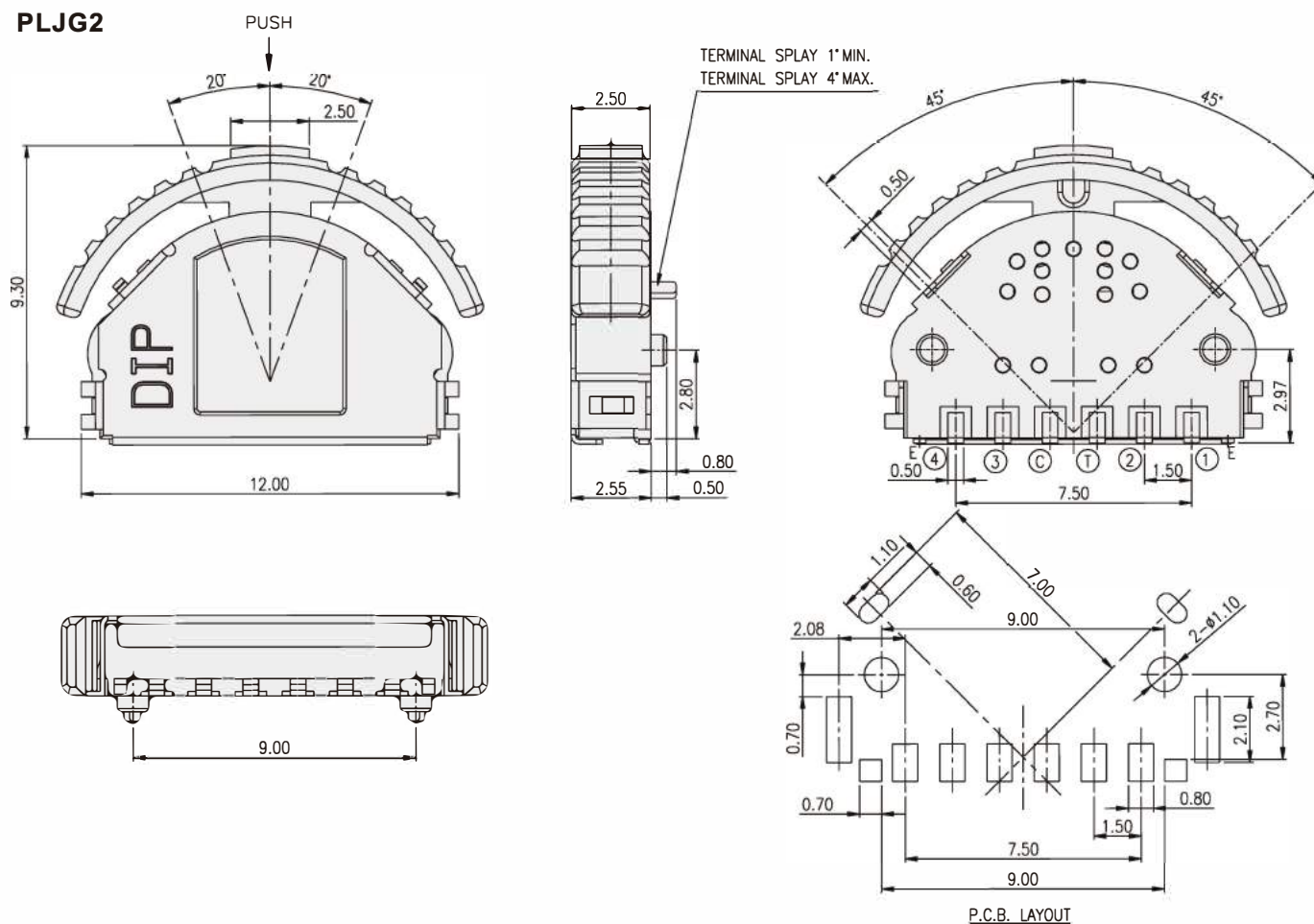
PLJG1



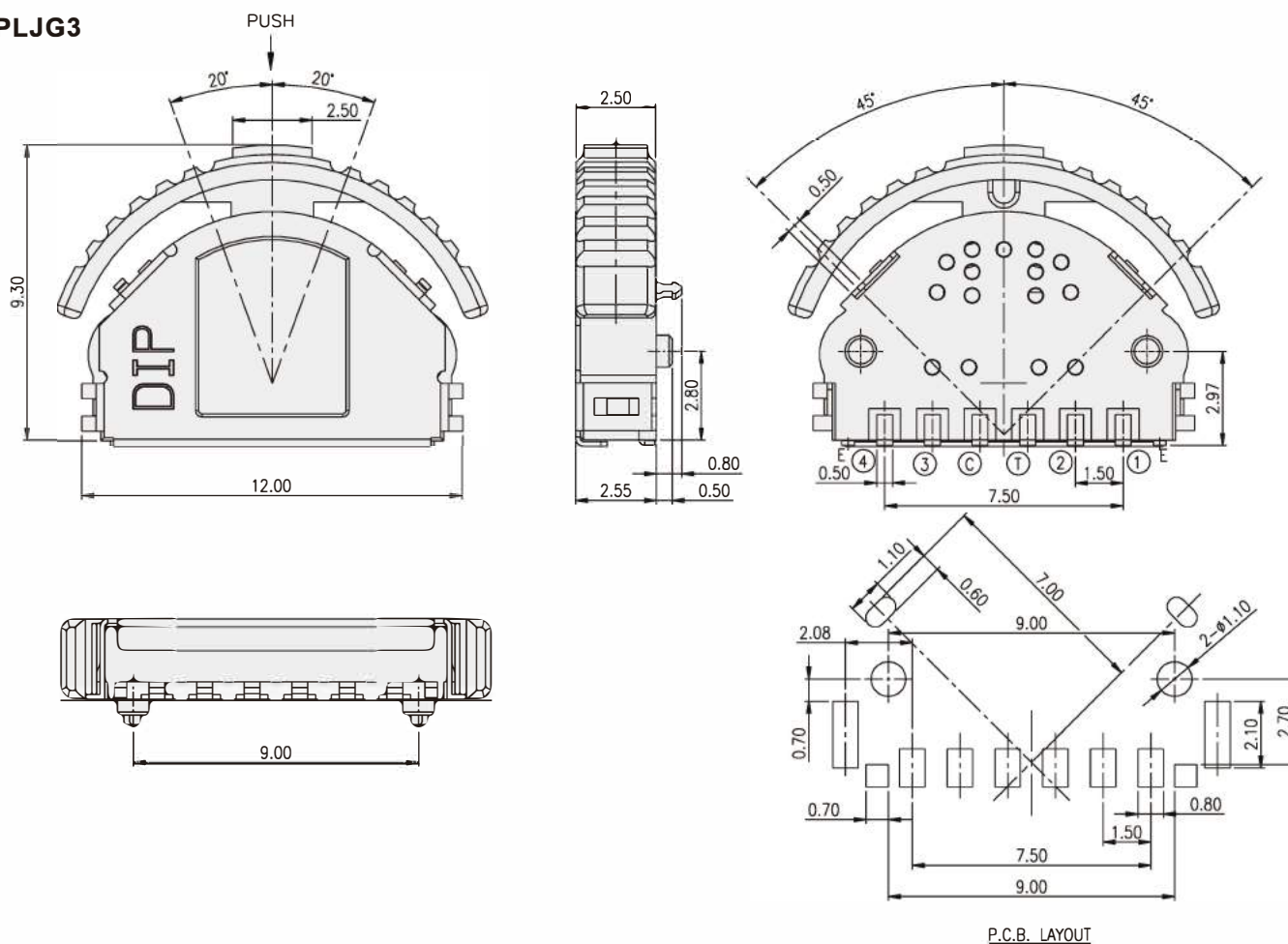
PLJG□-H



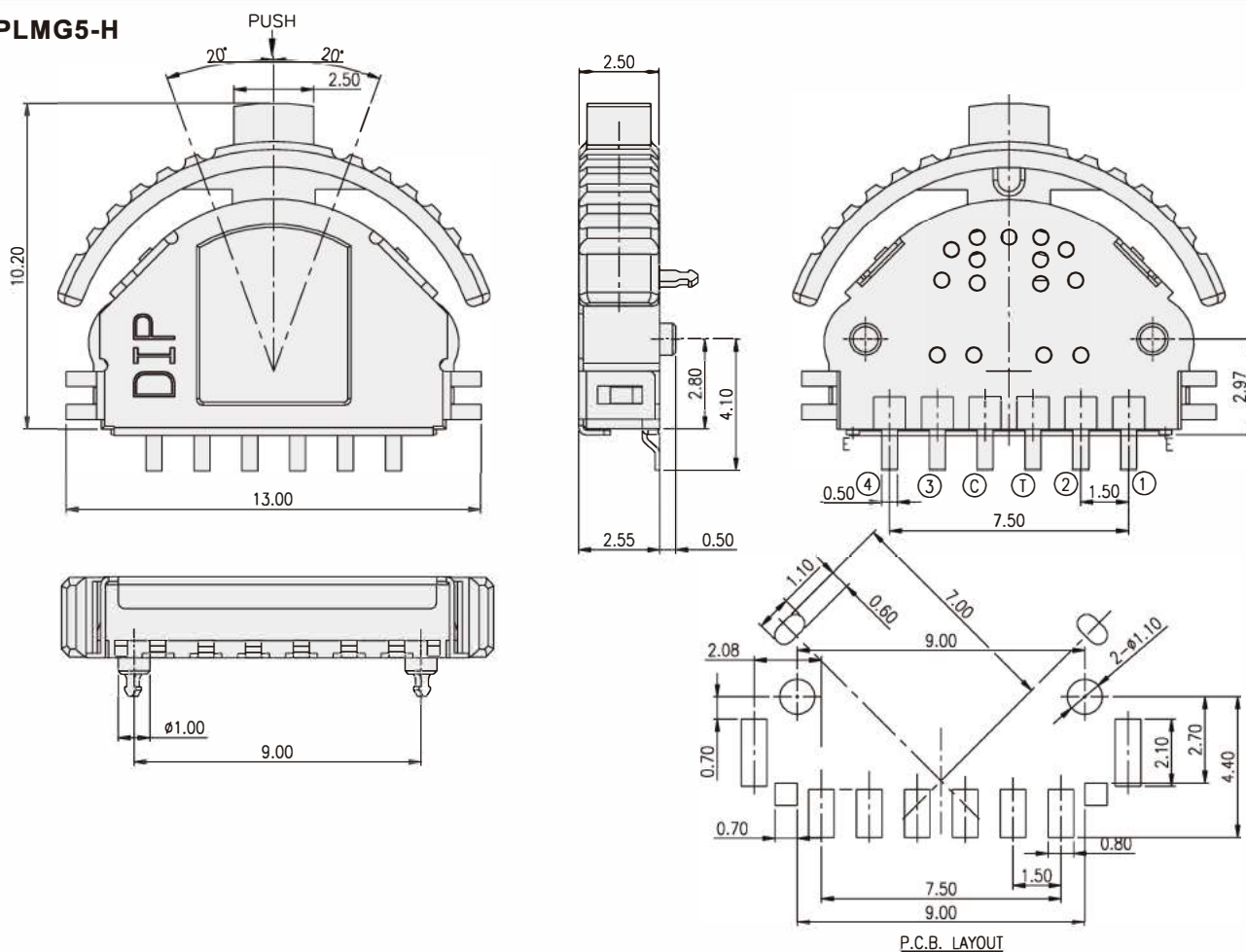
PLJG2



PLJG3

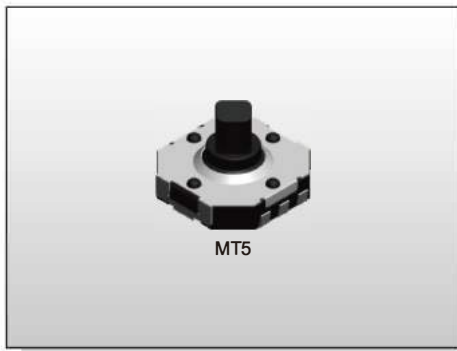


PLMG5-H



MULTI FUNCTION SWITCH MT(4)(5) SERIES

**Multi-direction
Type**



MT5

FEATURES

- ※7.4x7.7mm
- ※Variety of height options
- ※Reflow solderable

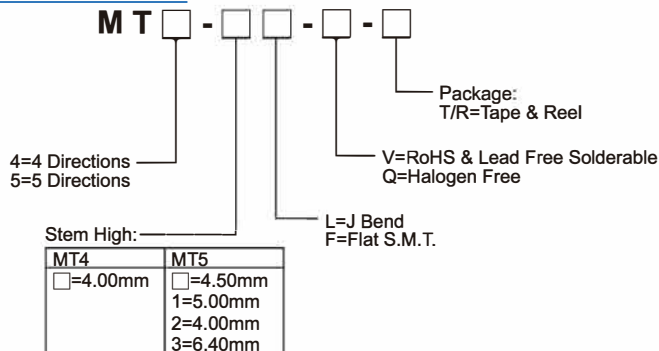
APPLICATION

- ※Medical device
- ※Consumer electronics
- ※Security device

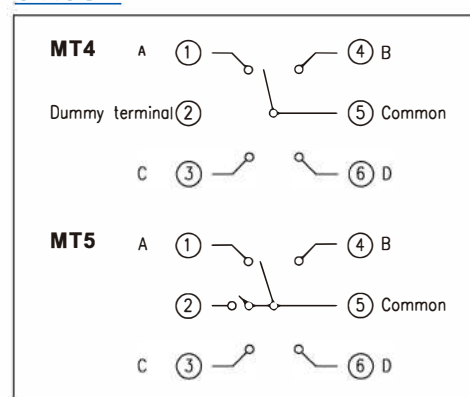
SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 100V DC
Dielectric Strength	250V AC/1 minute
Operating Force	160gf, 4-direction 360gf, Center push
Travel	0.25mm, 4-direction 0.15mm, Center push
Operating Life	100,000 cycles
Operating Temp.	-25°C ~ +70°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER



CIRCUIT



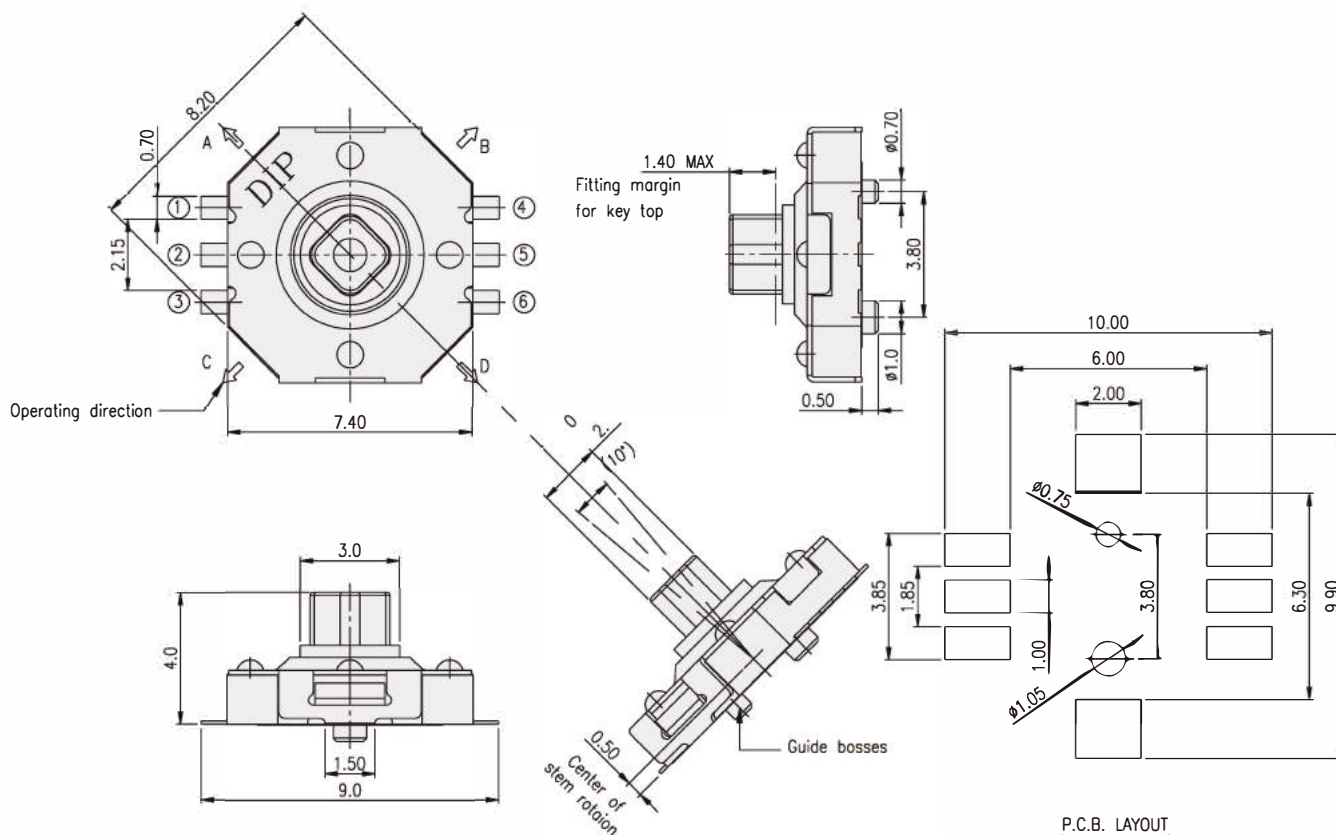
PACKAGE

<Tape & Reel>

850 pcs

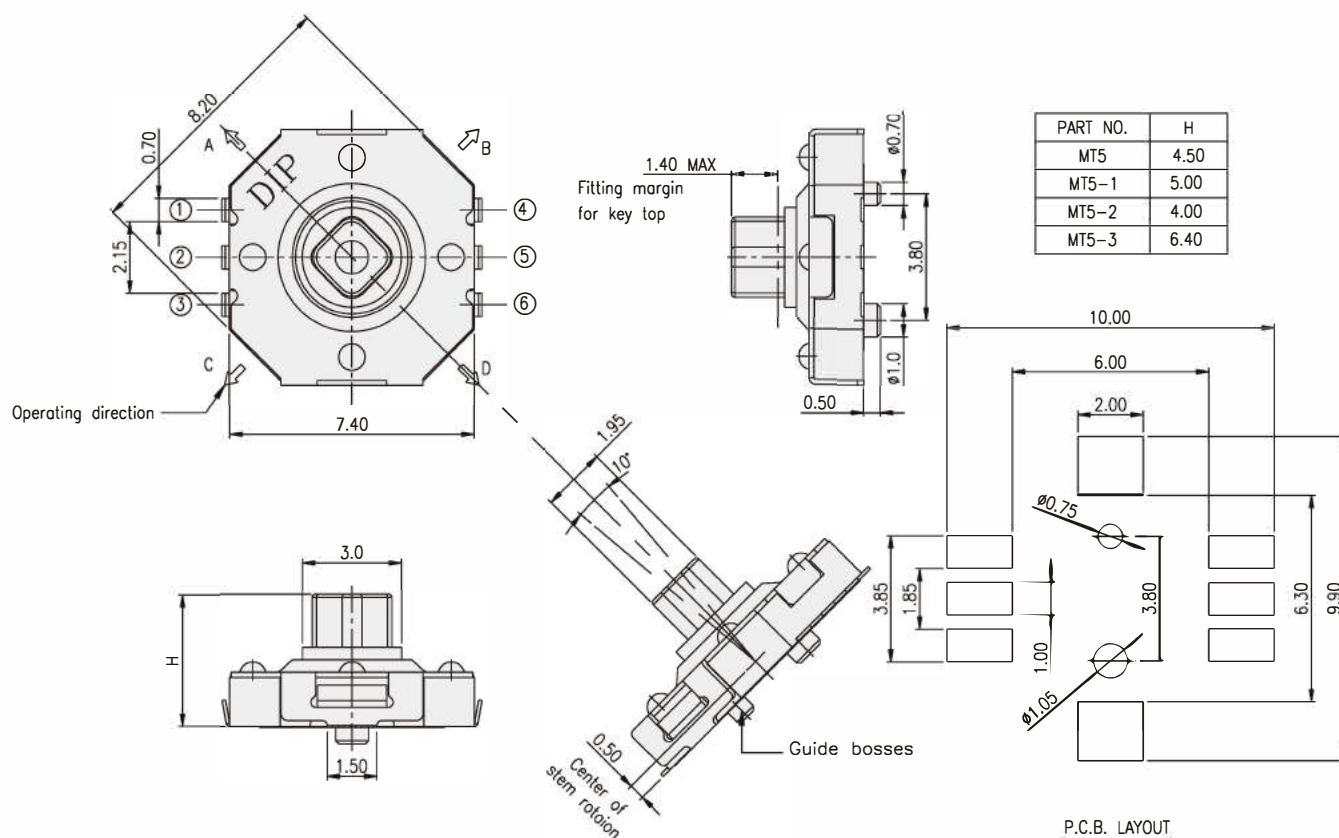
MT5-3☐: 800 pcs

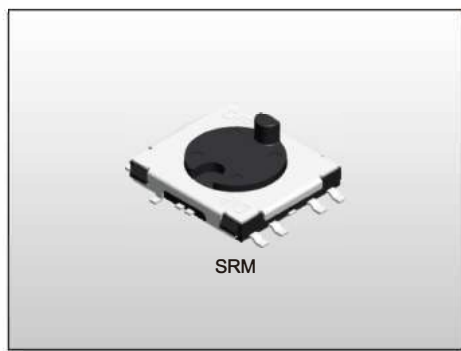
MT4-F



MULTI FUNCTION SWITCH

MT5-L



**FEATURES**

- ※Low profile
- ※Mode switching with maximum 8-direction
- ※Non-click structure applicable

APPLICATION

- ※Thermal controller
- ※Camera
- ※Audio

SPECIFICATION

Contact Rating	25mA, 24V DC
Contact Resistance	200mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	300V AC/1 minute
Operating Force	40±30gf, B 130±50gf, N
Operating Life	10,000 cycles
Operating Temp.	-25°C ~ +80°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER**S R M - 8 R****- V -**

8 Direction

Package:
T/R=Tape & Reel

Circuit:

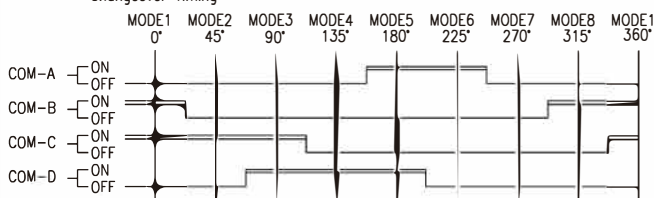
7=7 Circuit, Base: Black
8=8 Circuit, Base: Brown□=Without Ground Pin
G=With Ground Pin□=Non-click, Black
B=40gf, Blue
N=130gf, Brown**PACKAGE**

<Tape & Reel>

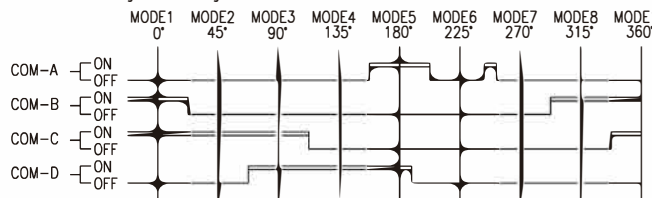
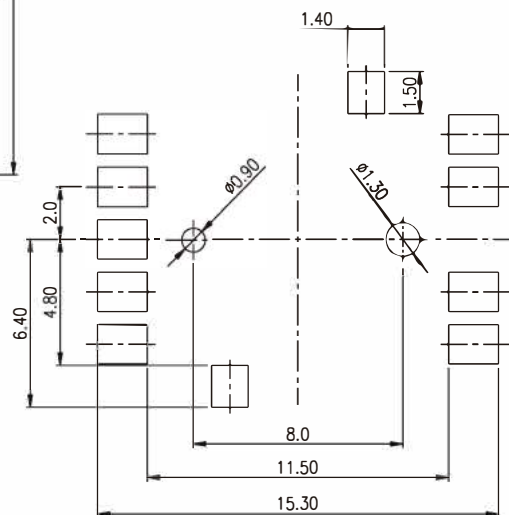
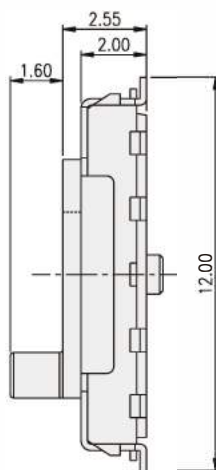
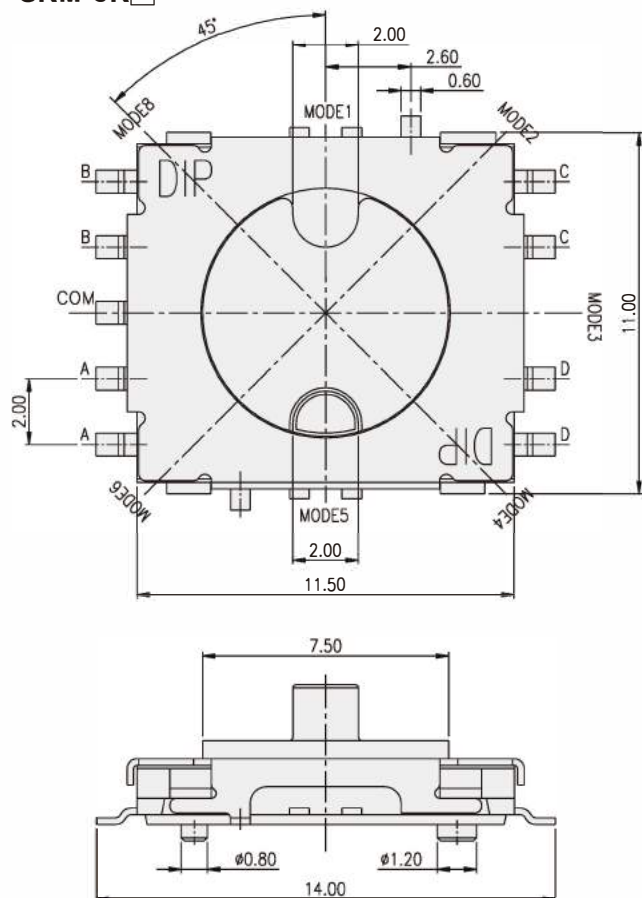
900 pcs

CIRCUIT**SRM-8R7**

Changeover Timing

**SRM-8R8**

Changeover Timing

**SRM-8R□**

P.C.B. LAYOUT



TT5

FEATURES

- ※Low-Profile of height 1.55mm
- ※Sharp operation feeling

APPLICATION

- ※Portable electronic devices
- ※Remote control
- ※Industrial applications

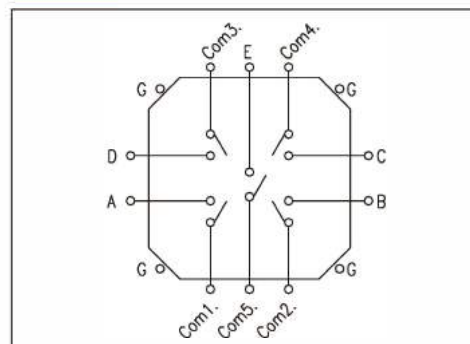
SPECIFICATION

Contact Rating	50mA, 12V DC
Contact Resistance	100mΩ max.
Insulation Resistance	100MΩ min. 500V DC
Dielectric Strength	250V AC/1 minute
Operating Force	180±60gf, Side 320+80/-60gf, Center
Travel	0.25mm
Operating Life	200,000 cycles
Operating Temp.	-20°C ~ +70°C
Storage Temp.	-40°C ~ +85°C

HOW TO ORDER**TT5-V-** 

Package:
B=Tube
T/R=Tape & Reel

RoHS & Lead Free Solderable

CIRCUIT**PACKAGE**

<Tube>

47 pcs

<Tape & Reel>

2500 pcs

TT5