

MODEL	SPECIFICATION		Page
TE series Tact Switch	Subminiature Tact Switch RoHS&REACH Compliant / Halogen Free	SP-001	1/8

Order Information

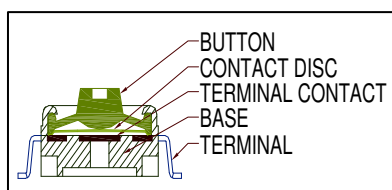
TE	S	1	Y	6	R	—	U
Subminiature Tact Switch TE series Terminal Type None=Thru-hole S =SMD for under Foil SM =SMD for with Cap	Circuit 0 =Pin①②vs③④ 1 =Pin①③vs②④	Push Force None =400gf/ 4.0N 6 =600gf/ 6.0N	Y=Right Angle	Package None =Tube R =Tape &	None =RoHS & Reach Compliant		U

Specifications

◆ Contact Rating	.....24VDC,20mA; Min. 0.5W
◆ Contact Resistance	.....100mΩ max. (after life test: 200mΩ max.)
◆ Insulation Resistance	.....1000MΩ at 100 VDC
◆ Dielectric Strength	.....250VAC,50Hz for the duration of 1 minute
◆ Operating Temperature	.....-25°C to+ 85°C
◆ Mechanical Life	.....1,000,000 operations
◆ Push Force	.....400gf±100gf/ 4.0N ±1.0N (after life test: 200-500gf)
◆ Travel	.....0.75±0.25
◆ Mounting	.....on pc-board
◆ Waterproof	.....Meet IP67

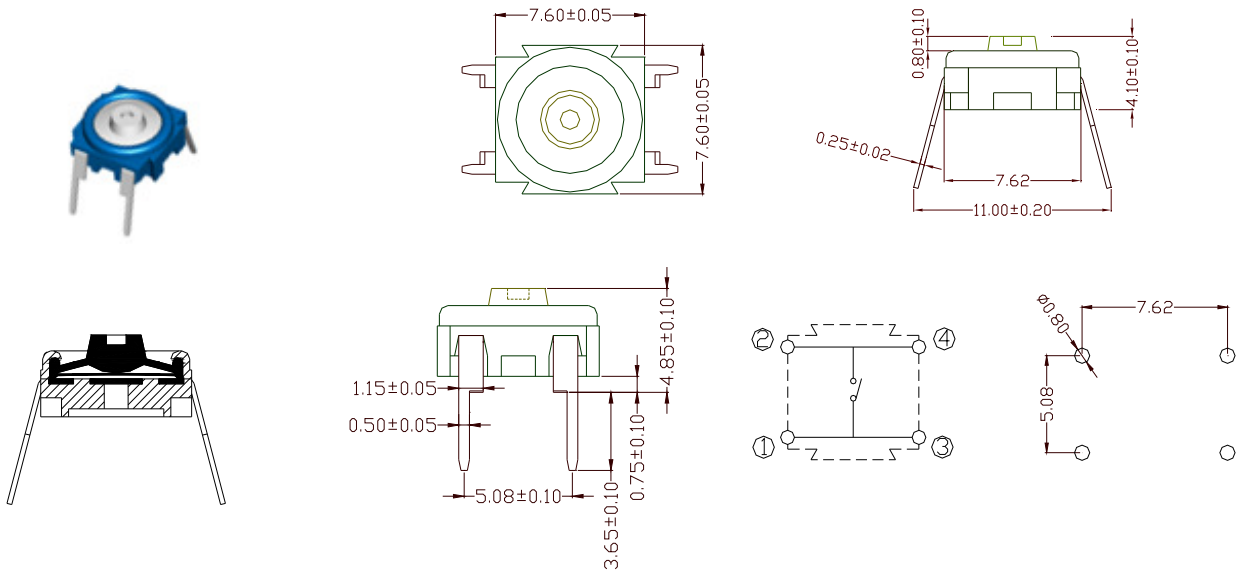
Materials:

◆ Button :	..... Silicone, IVORY color
◆ Base :TE1/TE1Y	..... Thermoplastic, meets UL 94-HB, Blue
TE0	..... Thermoplastic, meets UL 94-HB, Red
TES0/TESM0	..... Thermoplastic, meets UL 94V-0, White
TES1/TESM1	..... Thermoplastic, meets UL 94V-0, Black
◆ Contact Disc :	..... Stainless steel , Silver Plated over Nickel barrier
◆ Terminal Contact :	..... Brass, 1u" Gold-plated
◆ Terminal :	..... Brass, Tin-plated
◆ Bracket :	..... Brass, Tin-plated
◆ Cap :	..... Thermoplastic, PC UL 94-V2

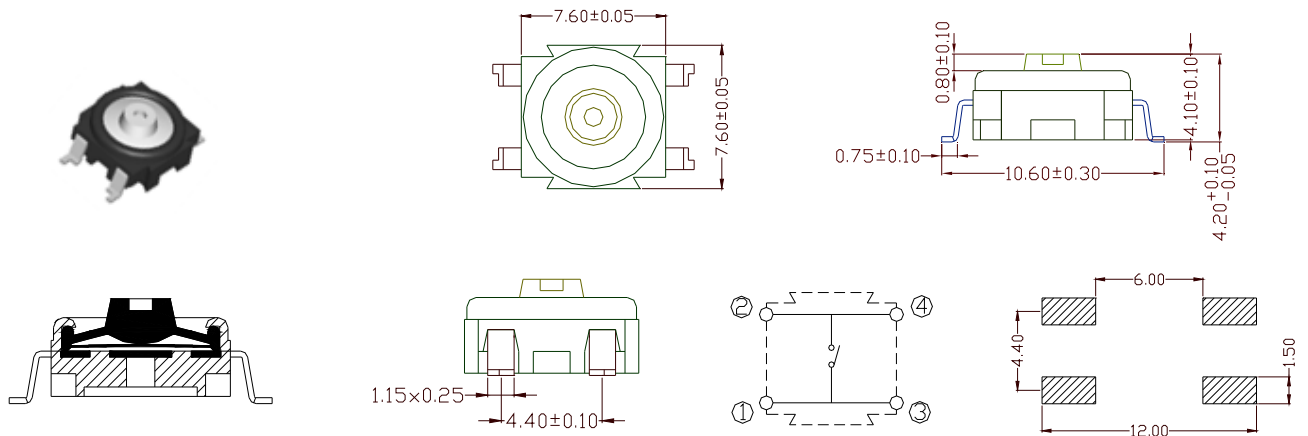


MODEL	SPECIFICATION Subminiature Tact Switch RoHS&REACH Compliant / Halogen Free	Page	2/8
TE series Tact Switch		SP-002	

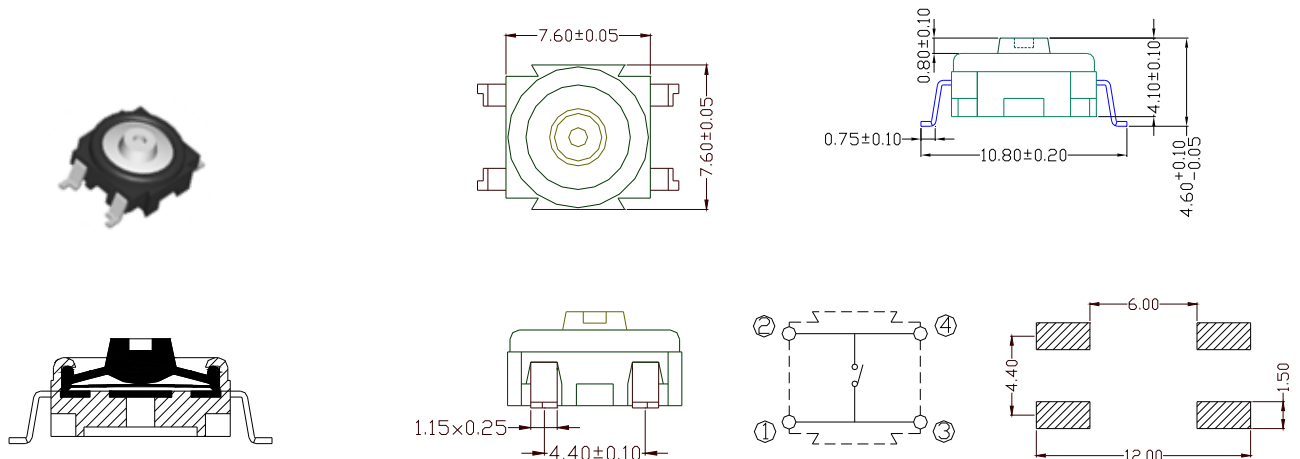
TE1



TES1 (SMD for Under Foil)

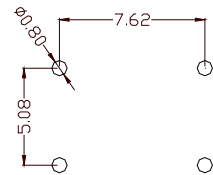
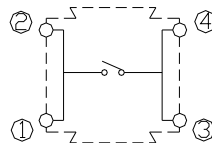
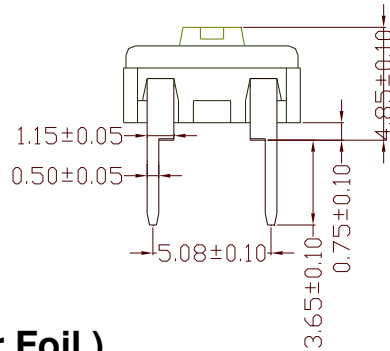
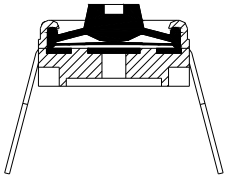
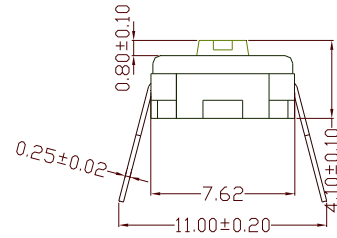
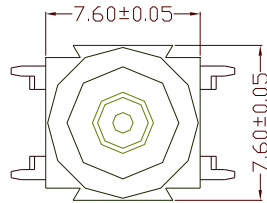


TESM1 (SMD for with Cap)

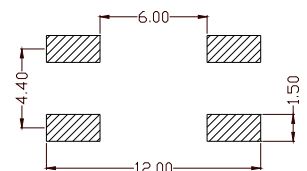
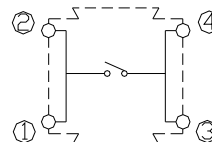
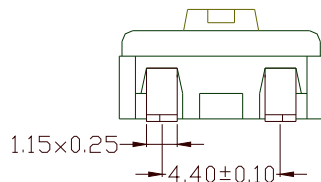
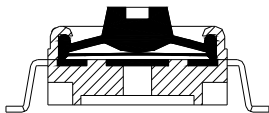
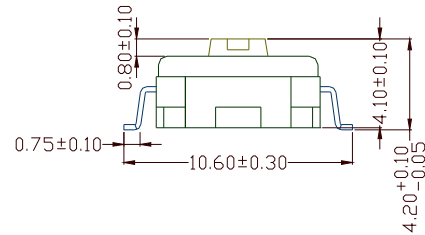
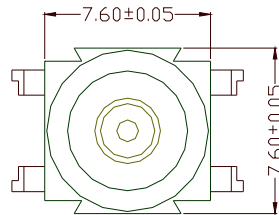


MODEL	SPECIFICATION		Page
TE series Tact Switch	Subminiature Tact Switch RoHS&REACH Compliant / Halogen Free	SP-003	3/8

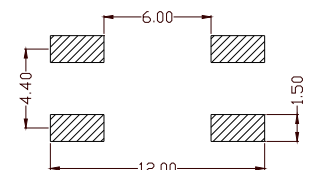
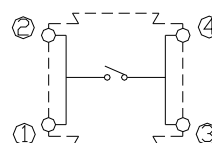
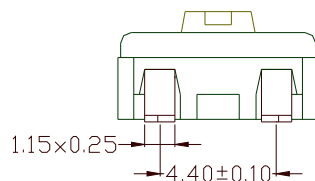
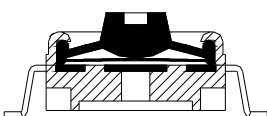
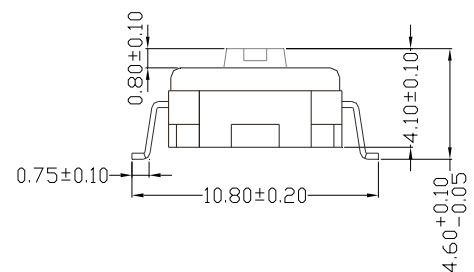
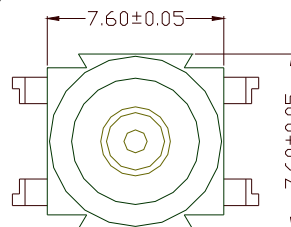
TE0



TES0 (SMD for Under Foil)

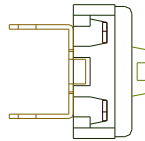
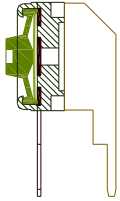
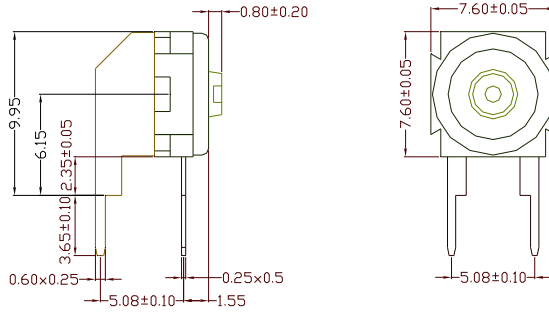
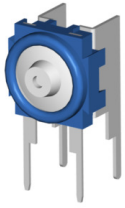


TESM0 (SMD for with Cap)

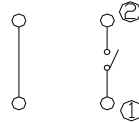


MODEL	SPECIFICATION		Page
TE series Tact Switch	Subminiature Tact Switch RoHS&REACH Compliant / Halogen Free	SP-004	4/8

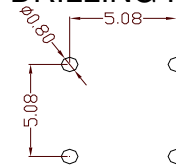
TE1Y



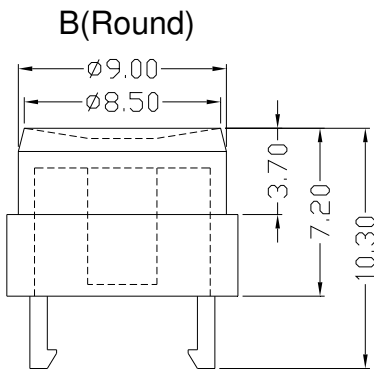
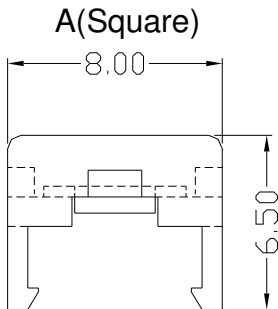
CIRCUIT DIAGRAM



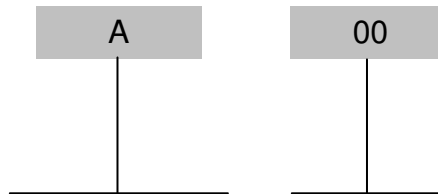
DRILLING PLAN



CAP



Cap Order Information

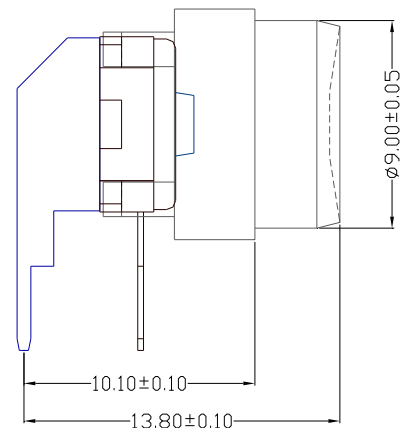
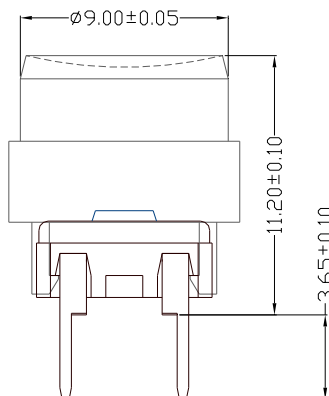


- | | |
|-----------------------|-----------------------|
| A: Square | 00: Blue |
| B: Round | 02: Green |
| C: Square type | 03: Light Grey |
| Texture surface | 04: Yellow |
| | 05: Dark Grey |
| | 06: White |
| | 08: Red |
| | 09: Black |

Note:

- All caps are not allowed to pass through the soldering process.
- All caps should be assembled after all soldering processes are finished.

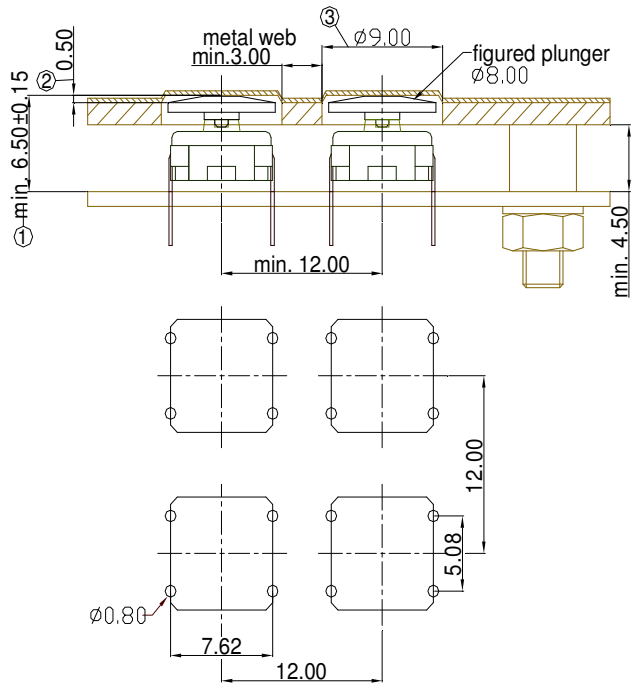
Switch with Cap



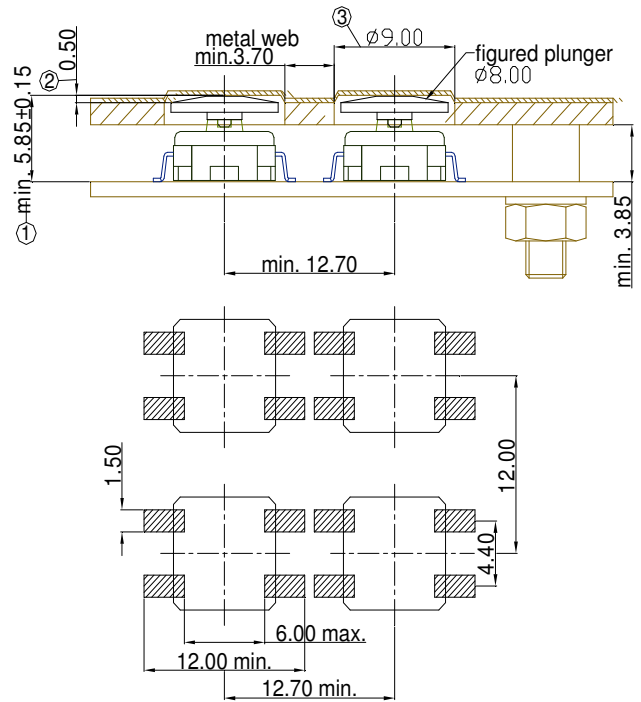
MODEL	SPECIFICATION Subminiature Tact Switch RoHS&REACH Compliant / Halogen Free	Page
TE series Tact Switch		SP-005 5/8

TE Typical system assembly with Plunger under overlay

Solder terminal for PCB.



SMD gullwing terminal



Explanation:

- 1 Overall height = TE + plunger
- 2 Recommended area embossing 0.35 mm at glue spacer thickness of 0.15 mm
- 3 Front panel cut out = plunger diameter + 1 mm

MODEL	SPECIFICATION		Page
TE series Tact Switch	Subminiature Tact Switch RoHS&REACH Compliant / Halogen Free	SP-006	6/8

Soldering Information

◆ Hand Soldering

Soldering iron of 30W or under at 350°C for 3 sec max or at 270°C for 5 sec max.

◆ Reflow Soldering

Allow 1-time reflow process only.

◆ Wave Soldering

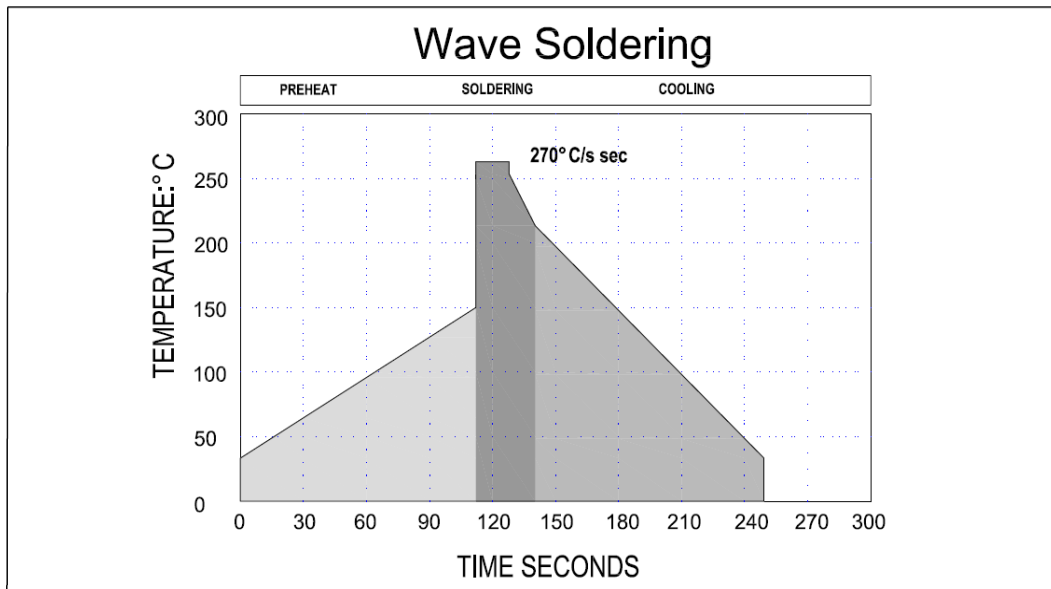
For lead free wave solder simulation of typical components, the solder bath temperature shall be maintained at 270°C max./ 5~10 seconds.

※ After reflow soldering, the white button will turn yellow. This is due to the characteristics of plastic, the switch's function is not affected.

Note:

1. All caps are not allowed to pass through the soldering process.
2. All caps should be assembled after all soldering processes are finished.

Recommended Wave Soldering Profiles



Maximum dwell time in the solder wave (270°C) shall not exceed 10 seconds.

MODEL	SPECIFICATION Subminiature Tact Switch RoHS&REACH Compliant / Halogen Free	SP-007	Page
TE series Tact Switch			7/8

Classification Reflow Profiles

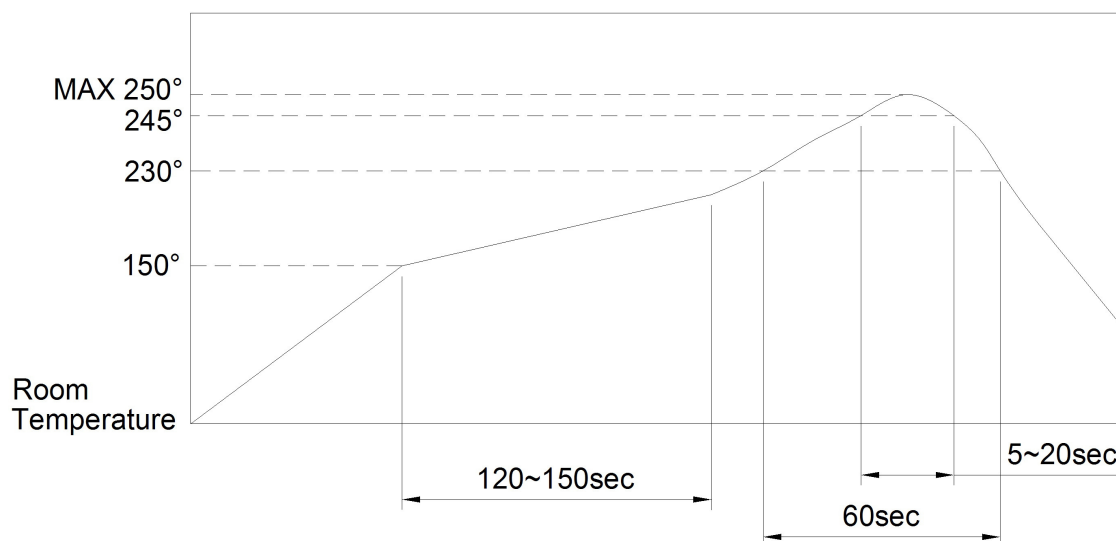
Profile Feature	Pb-Free Assembly
Preheat / Soak	
Temperature Min (T_{Smin})	150°C
Temperature Max (T_{Smax})	200°C
Time(ts) from (T_{Smin} to T_{Smax})	60 ~120 seconds
Ramp-up Rate (T_L to T_p)	3°C/second max
Liquidous temperature (T_L)	217°C
Time (t_L) maintained above to T_L	60 ~ 150 seconds
Peak package body temperature (T_p)	For users T_p must not exceed the Classification temp:260°C (Package Thickness:>2.5mm) For suppliers T_p must equal or exceed the Classification temp:250°C (Package Thickness:>2.5mm)
Time (t_p) within 5°C of specified classification Temperature (T_c)	30 seconds
Ramp-Down Rate (T_p to T_L)	6°C/second max
Time 25°C to Peak Temperature	8 minutes max
* Tolerance for peak profile temperature(T_p) is defined as a supplier minimum and a user maximum	

Note 1: All temperatures refer to topside of the package, measured on the package body surface.

Note 2: Time within 5 °C of actual peak temperature (t_p) specified for the reflow profiles is a “supplier” minimum and “user” maximum.

Sources: IPC/JEDEC J-STD-020 D.1

Recommended Reflow Soldering Conditions



MODEL	SPECIFICATION Subminiature Tact Switch RoHS&REACH Compliant / Halogen Free	SP-008	Page
TE series Tact Switch			8/8

Package:

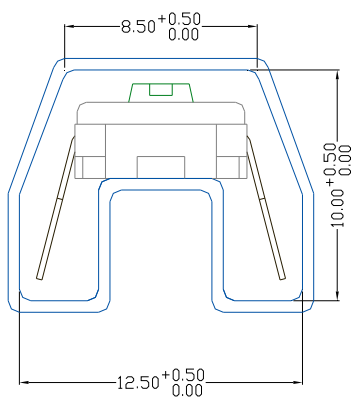
P/N	Quantity per Tube
TE0	50
TES0/TESM0	50
TE1	50
TES1/TESM1	50
TE1Y	50

P/N	Quantity per Reel
TES0-R/TESM0-R	1100
TES1-R/TESM1-R	1100

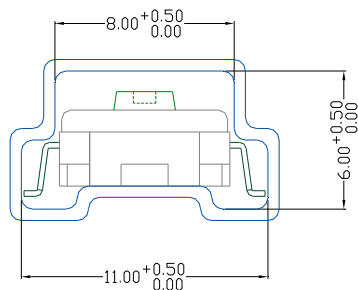
P/N	Quantity per Bag
CAP	1000

TUBE (Tube = 400mm L)

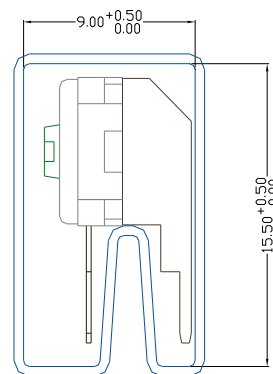
Thru-hole



SMD

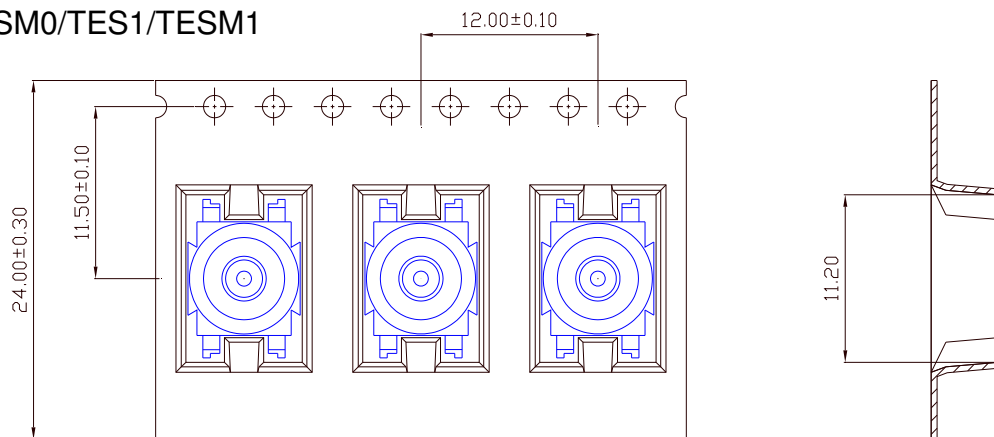


Right Angle



Tape & Reel Package

◆ TES0/TESM0/TES1/TESM1



Box Dimension:

- ◆ Tube 57.0cm x 13.0cm x 12.5cm
- ◆ Reel 34.0cm x 13.0cm x 35.5cm

Carton Dimension:

- ◆ Tube
2 Boxes..... 58.5cm x 29.0cm x 15.0cm
4 Boxes..... 58.5cm x 28.0cm x 27.0cm
- ◆ Reel
2 Boxes 36.0cm x 27.5cm x 37.0cm