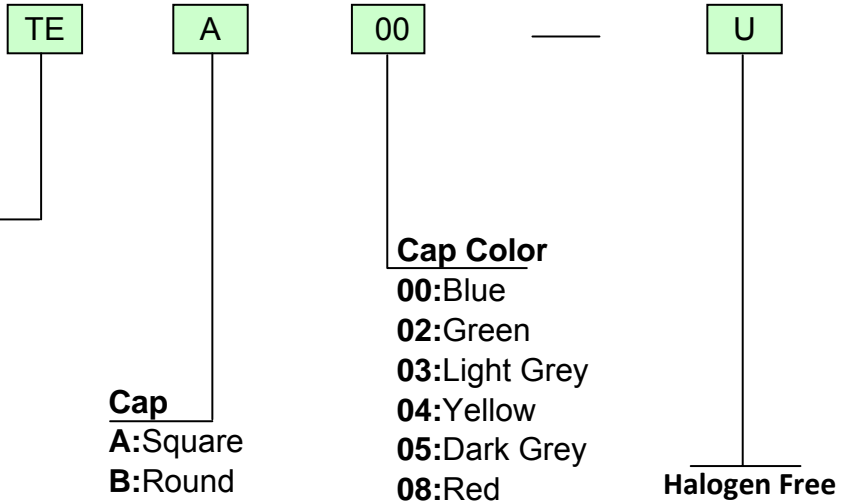


<b>MODEL</b>	<b>SPECIFICATION</b>	SP-01	Page
TE series Tact Switch			Subminiature Tact Switch-RoHS Compliant

### Order Information



**Subminiature Tact Switch**

- TE0:** Thru-hole
- TES0:** SMD for under Foil
- TESM0:** SMD for with Cap
- TE1:** Thru-hole
- TES1:** SMD for under Foil
- TESM1:** SMD for with Cap
- TE1-R:** Right Angle

- Cap**
- A:** Square
  - B:** Round

- Cap Color**
- 00:** Blue
  - 02:** Green
  - 03:** Light Grey
  - 04:** Yellow
  - 05:** Dark Grey
  - 08:** Red

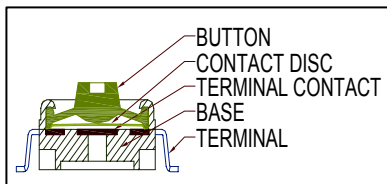
**Halogen Free**

### Specifications

Contact Rating	.....	24VDC, 20mA; Min. 0.5W
Contact Resistance	.....	100mΩ
Insulation Resistance	.....	1000mΩ at 100 VDC
Dielectric Strength	.....	250VAC, 50Hz for the duration of 1 minute
Operation Temperature	.....	-25 to + 85
Mechanical Life	.....	1,000,000 operations
Push Force	.....	4N ± 1.0N
Travel	.....	0.75 ± 0.25
Mounting	.....	on pc-board
Wave Soldering	.....	270 5 Sec. Max
Reflow Soldering	.....	260 30 Sec. Max
Handing Soldering	.....	350 3 Sec. Max

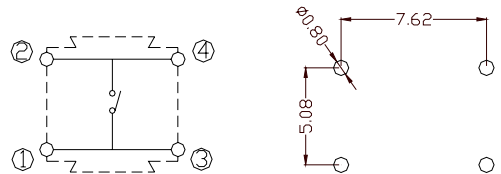
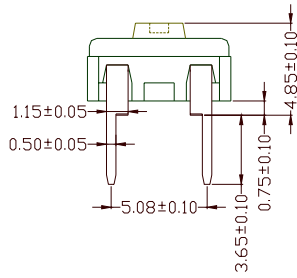
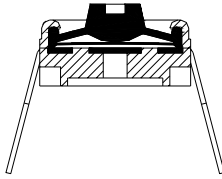
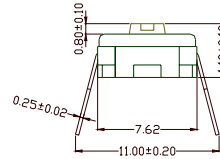
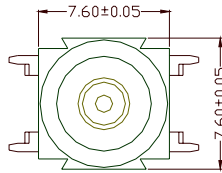
### Materials:

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

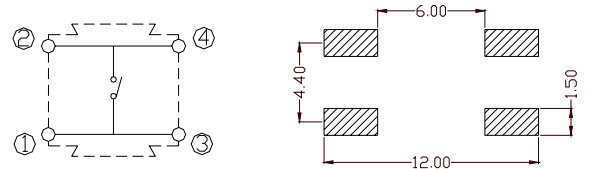
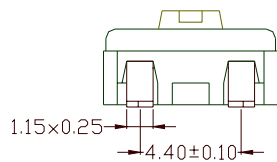
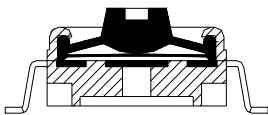
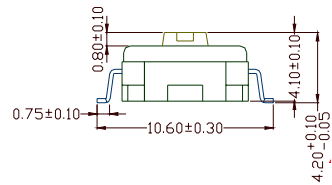
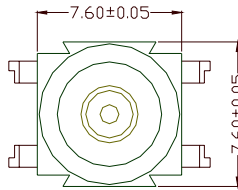


<b>MODEL</b>	<b>SPECIFICATION</b>	SP-02	<b>Page</b>
TE series Tact Switch			Subminiature Tact Switch-RoHS Compliant

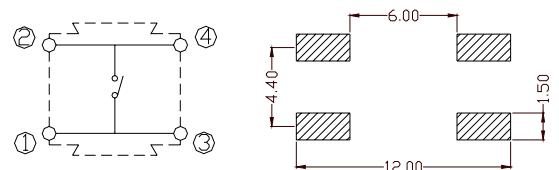
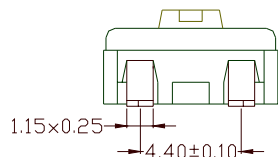
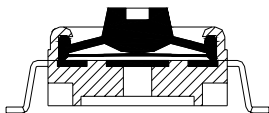
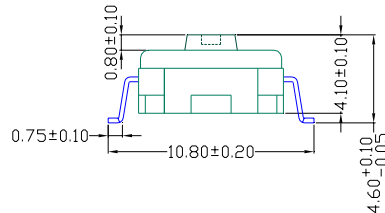
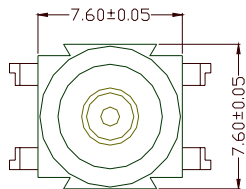
### TE1



### TES1 (SMD for Under Foil)

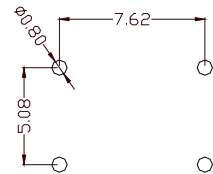
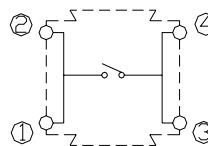
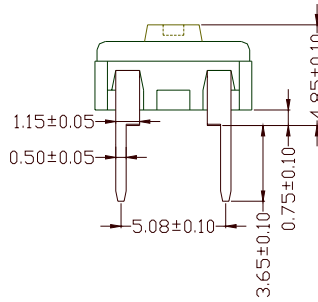
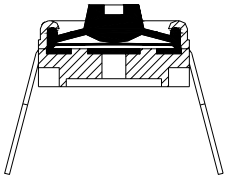
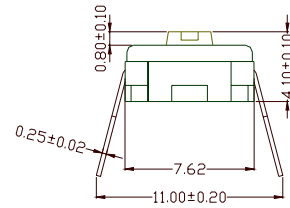
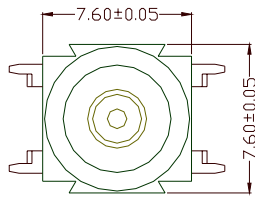


### TESM1 (SMD for with Cap)

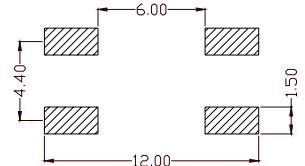
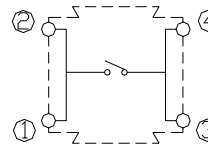
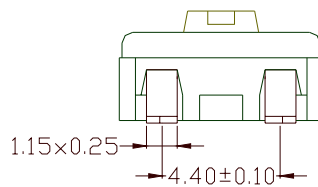
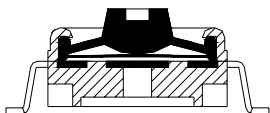
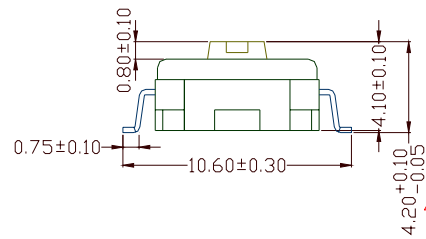
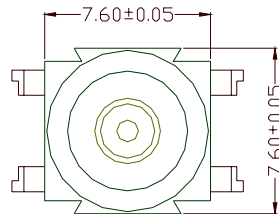
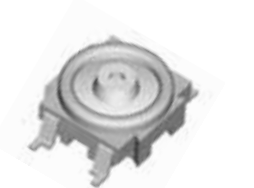


<b>MODEL</b>	<b>SPECIFICATION</b>	SP-03	<b>Page</b>
TE series Tact Switch			Subminiature Tact Switch-RoHS Compliant

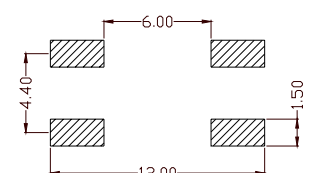
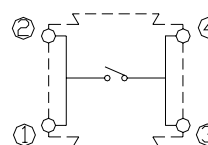
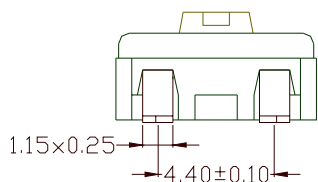
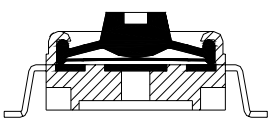
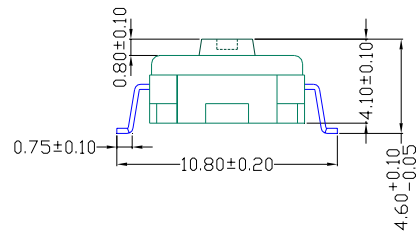
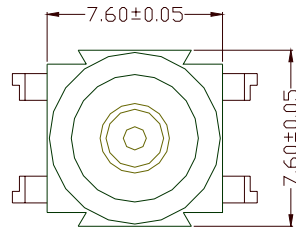
### TE0



### TES0

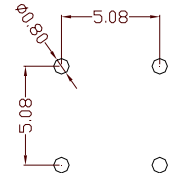
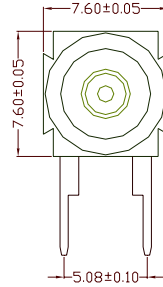
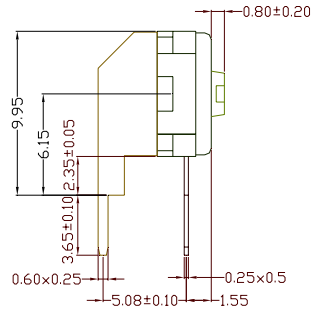
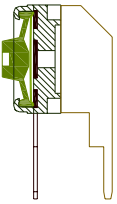
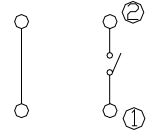
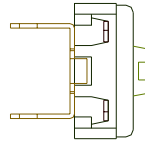


### TESM0



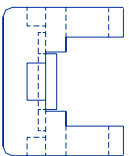
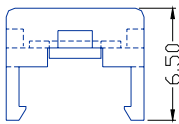
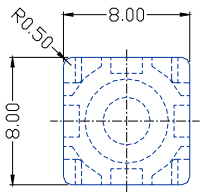
<b>MODEL</b>	<b>SPECIFICATION</b>	SP-04	Page
TE series Tact Switch			Subminiature Tact Switch-RoHS Compliant

### TE1-R



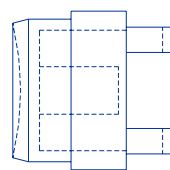
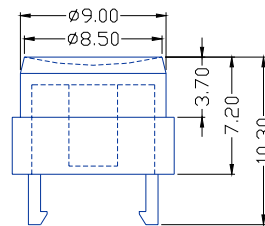
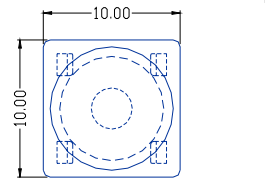
### CAP

#### A: Square



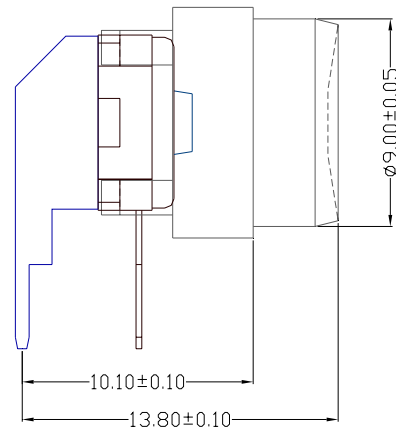
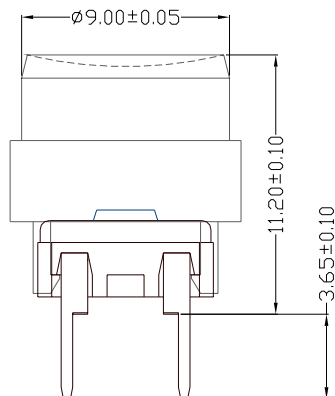
Material:PC	
P/N	Cap Color
A00	Blue
A02	Green
A03	Light Grey
A04	Yellow
A05	Dark Grey
A08	Red

#### B: Round



Material:PC	
P/N	Cap Color
B00	Blue
B02	Green
B03	Light Grey
B04	Yellow
B05	Dark Grey
B08	Red

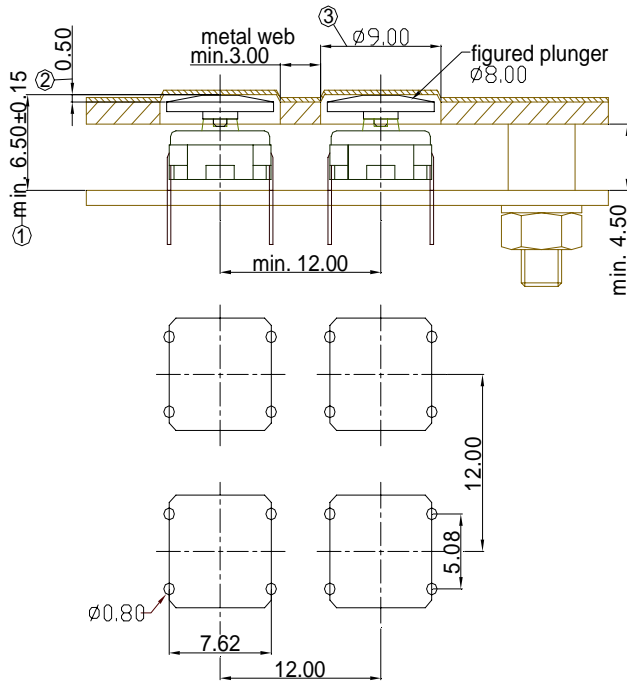
### Switch with Cap



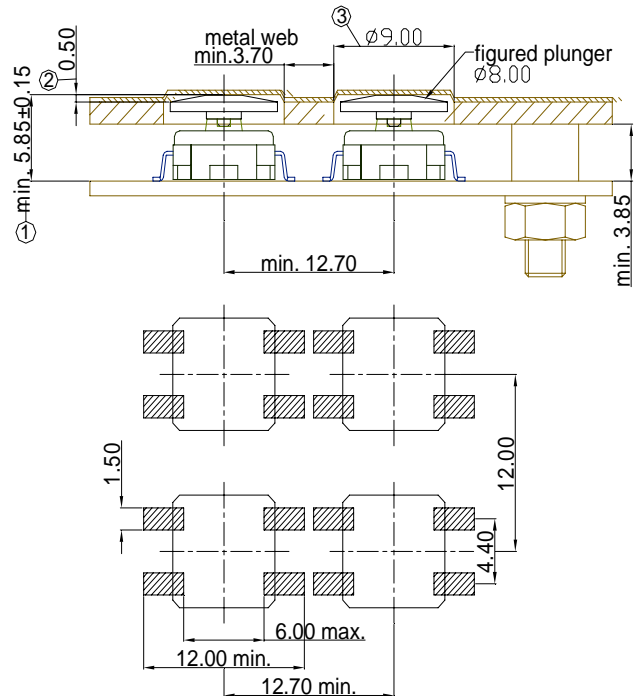
MODEL	<b>SPECIFICATION</b>	SP-05	Page
TE series Tact Switch			5/7
Subminiature Tact Switch-RoHS Compliant			

### TE Typical system assembly with Plunger under overlay

#### Solder terminal for PCB.



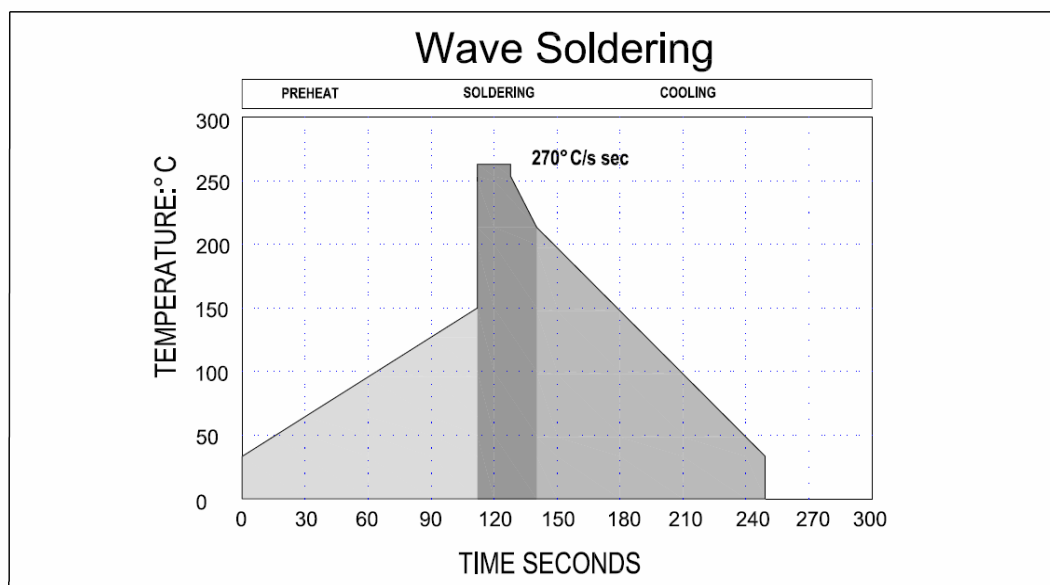
#### SMD gullwing terminal



#### 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

### Classification Wave Soldering Profiles



Maximum dwell time in the solder wave (270 ) shall not exceed 5 seconds.

### Classification Reflow Profiles

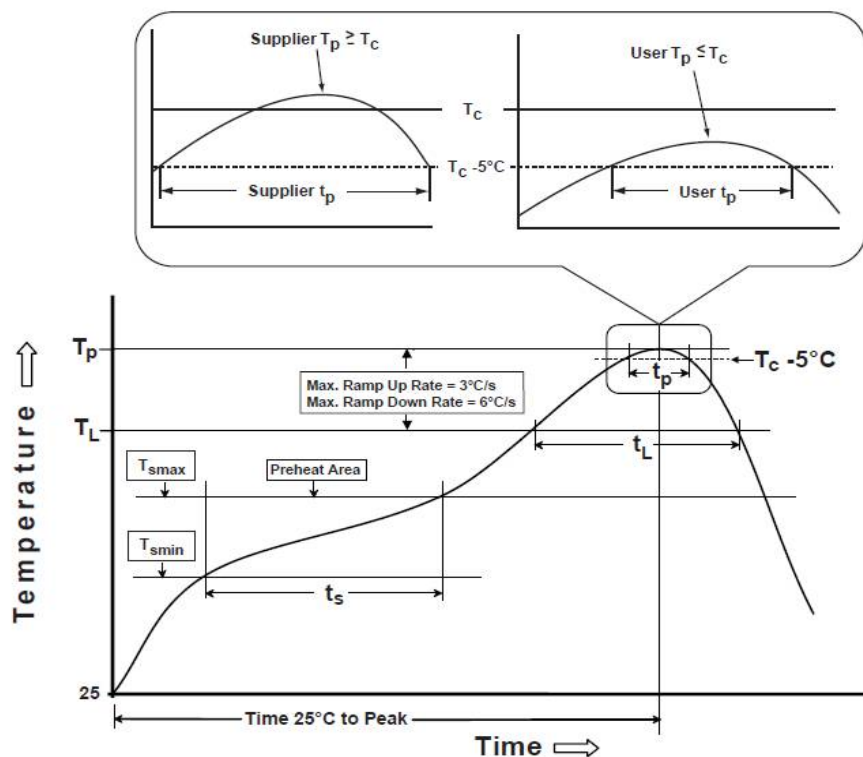
Profile Feature	Pb-Free Assembly
<b>Preheat / Soak</b>	
Temperature Min ( $T_{smin}$ )	150
Temperature Max ( $T_{smax}$ )	200
Time(ts) from ( $T_{smin}$ to $T_{smax}$ )	60 ~120 seconds
Ramp-up Rate ( $T_L$ to $T_p$ )	3 /second max
Liquidous temperature ( $T_L$ )	217
Time ( $t_L$ ) maintained above to $T_L$	60 ~ 150 seconds
Peak package body temperature ( $T_p$ )	For users $T_p$ must not exceed the Classification temp:260 (Package Thickness:>2.5mm) For suppliers $T_p$ must equal or exceed the Classification temp:250 (Package Thickness:>2.5mm)
Time ( $t_p$ ) within 5 of specified classification Temperature ( $T_c$ )	30 seconds
Ramp-Down Rate ( $T_p$ to $T_L$ )	6 /second max
Time 25 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.

#### The table copy from IPC/JEDEC J-STD-020 D.1 Reflow Soldering Standard Conditions



<b>MODEL</b>	<b>SPECIFICATION</b>	SP-08	Page
TE series Tact Switch			Subminiature Tact Switch-RoHS Compliant

**Tube Package:**

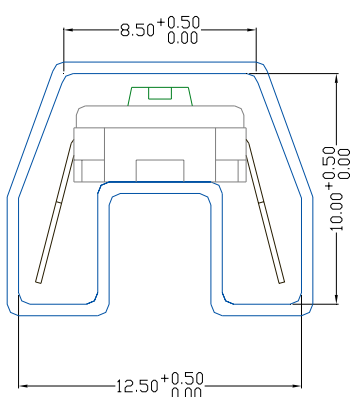
TE0/TE1/TE0/TESM0/TE0/TE1/TE0/TE1-R

(Tube = 400mm L)

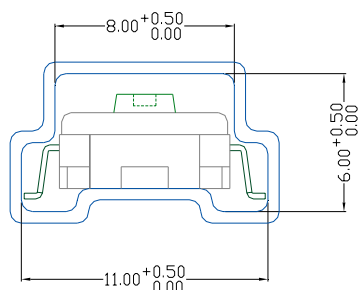
P/N	TE0	TE1	TES0	TES1	TE1-R
TUBE	50	50	50	50	50
BOX	3200	3200	5000	5000	3300
CTN 1	6400	6400	10000	10000	6600
CTN 2	12800	12800	20000	20000	13200

**TUBE**

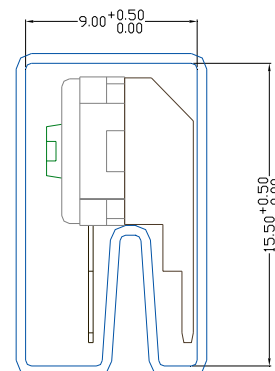
**Thru-hole**



**SMD**

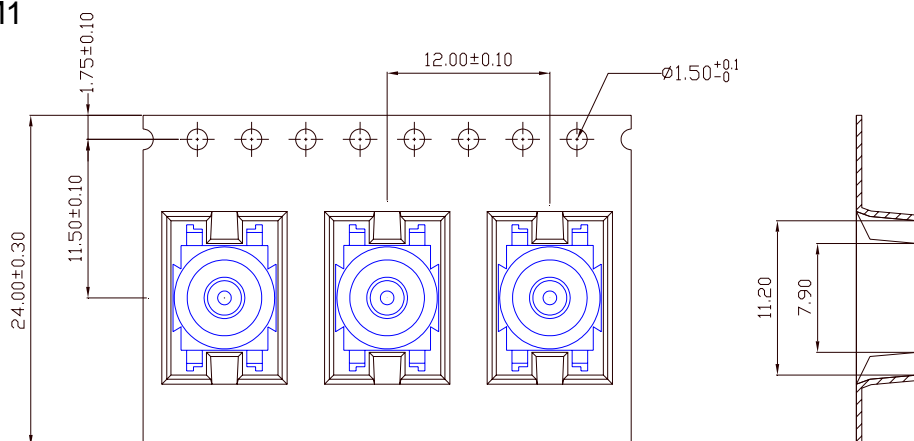


**Right Angle**



**Tapin & Reel Package**

TES0/TESM0/TE0/TE1/TE0/TE1-R  
1200PCS/REEL



**Box Dimension:**

Tube .....57.0cm x 13.0cm x 12.5cm  
Reel .....34.0cm x 12.0cm x 33.0cm

**Carton Dimension:**

Tube  
CTN 1: 2 Boxes.....58.5cm x 29.0cm x 15.0cm  
CTN 2: 4 Boxes.....58.5cm x 28.0cm x 27.0cm  
Reel  
2 Boxes .....34.0cm x 26.0cm x 35.0cm