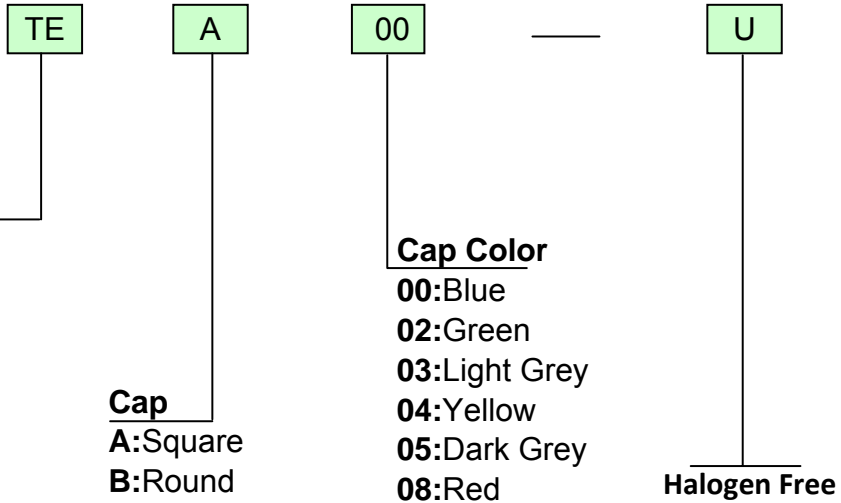


|                          |                      |       |   |
|--------------------------|----------------------|-------|---|
| <b>MODEL</b>             | <b>SPECIFICATION</b> | SP-01 | Page                                    |
| TE series<br>Tact Switch |                      |       | Subminiature 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
- TE1Y : Right Angle

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

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

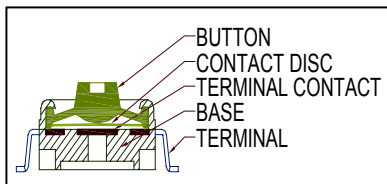
**Halogen Free**

### 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                            |

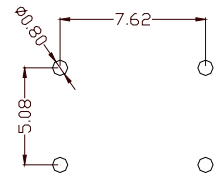
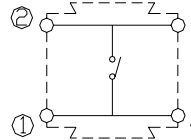
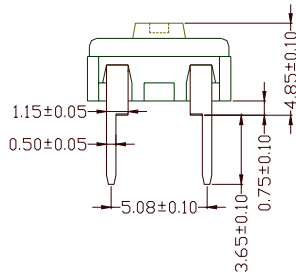
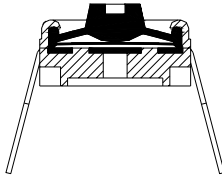
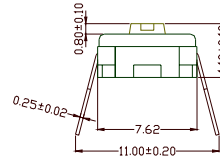
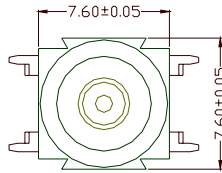
### Materials:

- 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

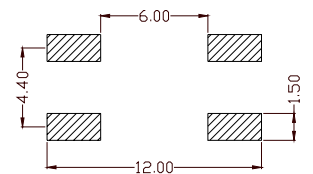
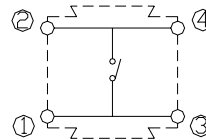
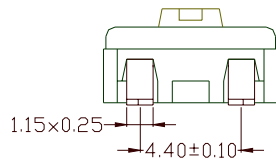
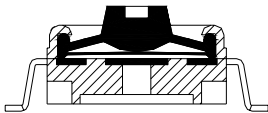
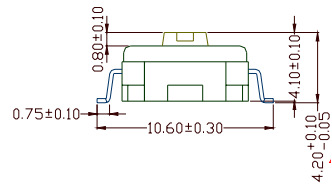
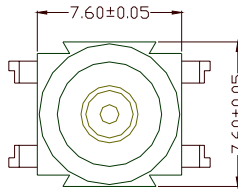


|                          |   |       |             |
|--------------------------|---|-------|-------------|
| <b>MODEL</b>             | <b>SPECIFICATION</b><br>Subminiature Tact Switch-RoHS Compliant | SP-02 | <b>Page</b> |
| TE series<br>Tact Switch |   |       | 2/7         |

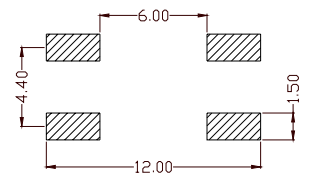
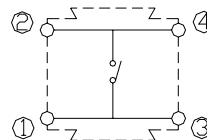
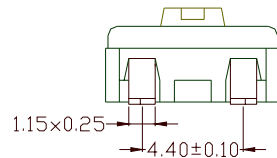
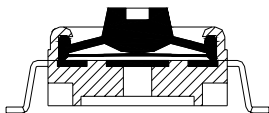
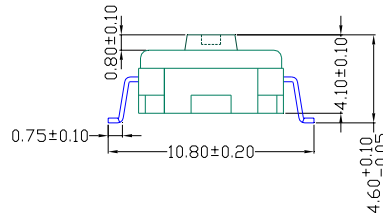
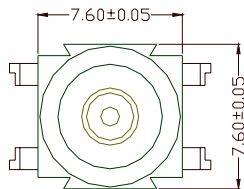
### TE1



### TES1 (SMD for Under Foil)

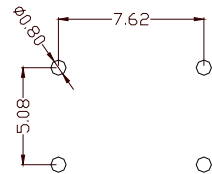
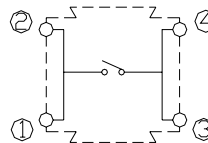
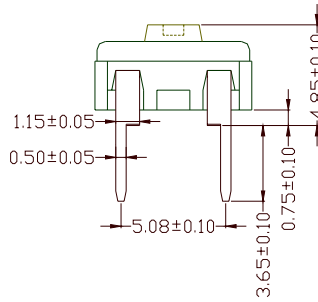
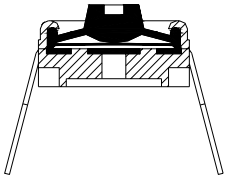
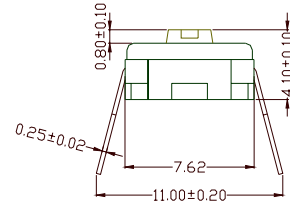
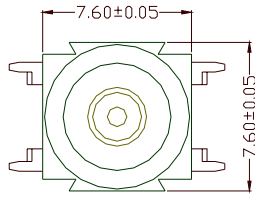


### TESM1 (SMD for with Cap)

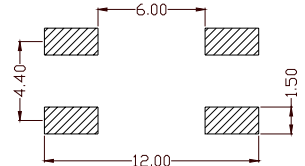
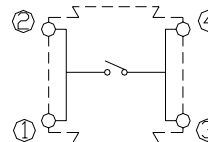
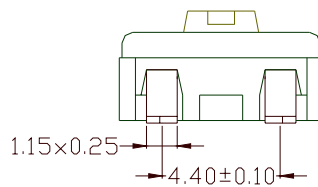
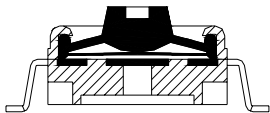
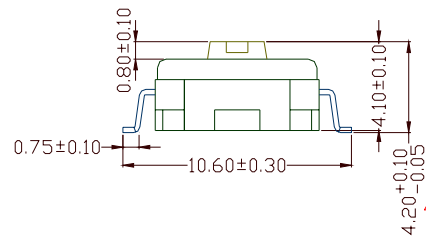
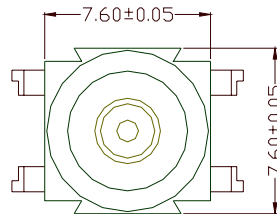
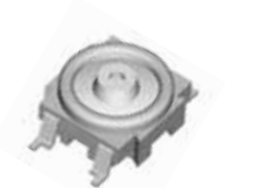


|                          |                      |       |      |
|--------------------------|----------------------|-------|------|
| MODEL                    | <b>SPECIFICATION</b> | SP-03 | Page |
| TE series<br>Tact Switch |                      |       | 3/7  |

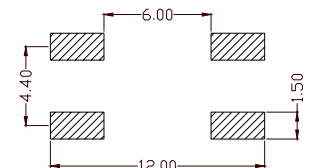
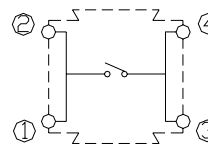
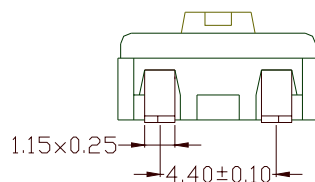
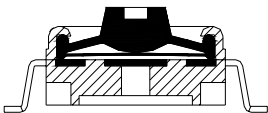
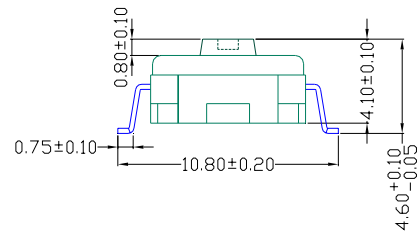
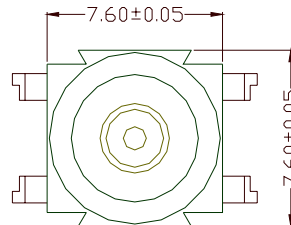
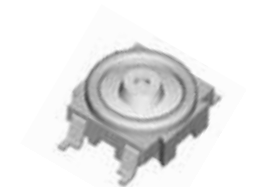
### TE0



### TES0

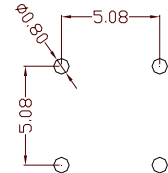
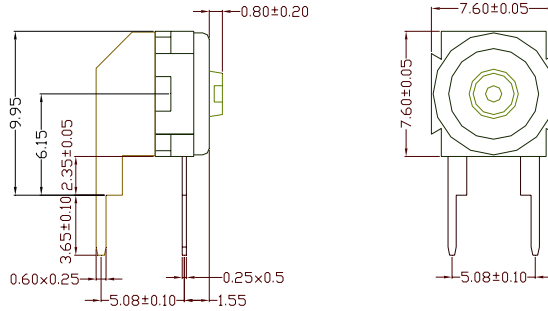
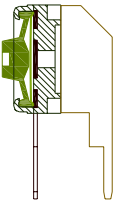
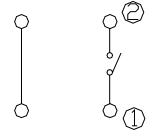
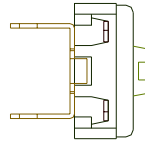


### TESM0



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

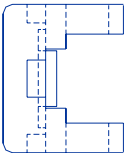
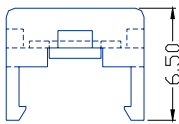
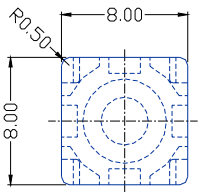
TE1Y



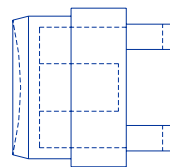
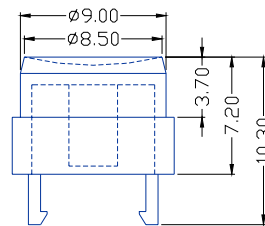
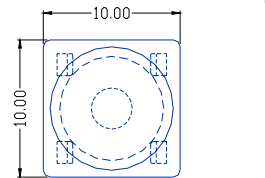
**CAP**

**A: Square**

**B: Round**

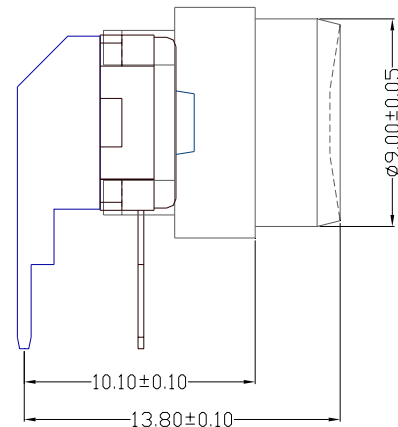
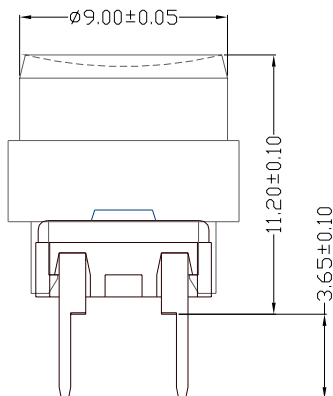


| Material:PC |            |
|-------------|------------|
| P/N         | Cap Color  |
| A00         | Blue       |
| A02         | Green      |
| A03         | Light Grey |
| A04         | Yellow     |
| A05         | Dark Grey  |
| A08         | Red        |



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

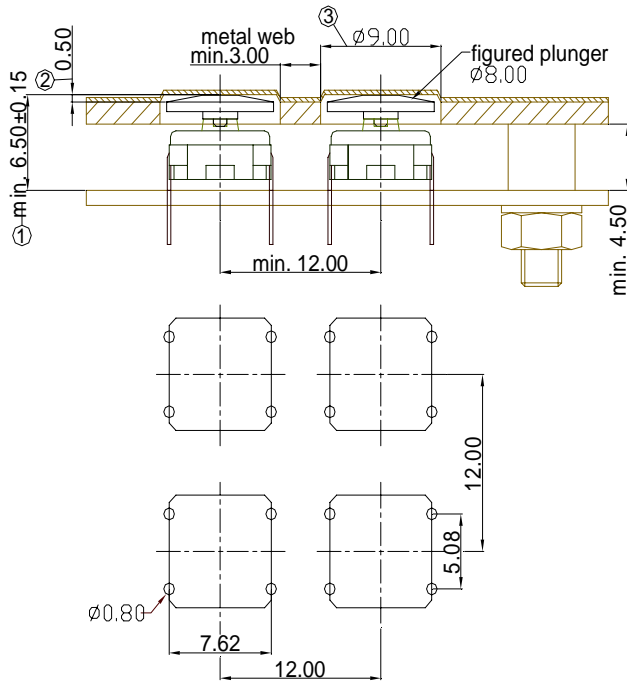
**Switch with Cap**



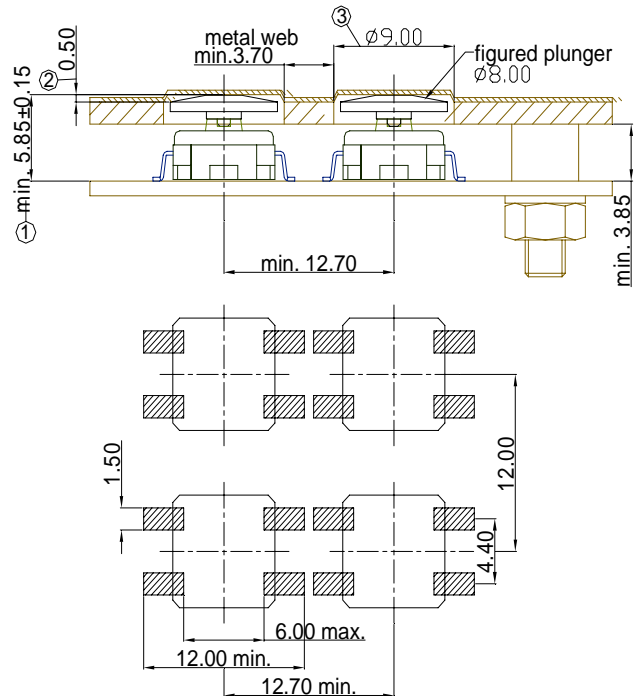
|   |                      |       |      |
|---|----------------------|-------|------|
| MODEL                                   | <b>SPECIFICATION</b> | SP-05 | Page |
| TE series<br>Tact Switch                |                      |       | 5/7  |
| Subminiature Tact Switch-RoHS Compliant |     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

### TE Typical system assembly with Plunger under overlay

#### Solder terminal for PCB.



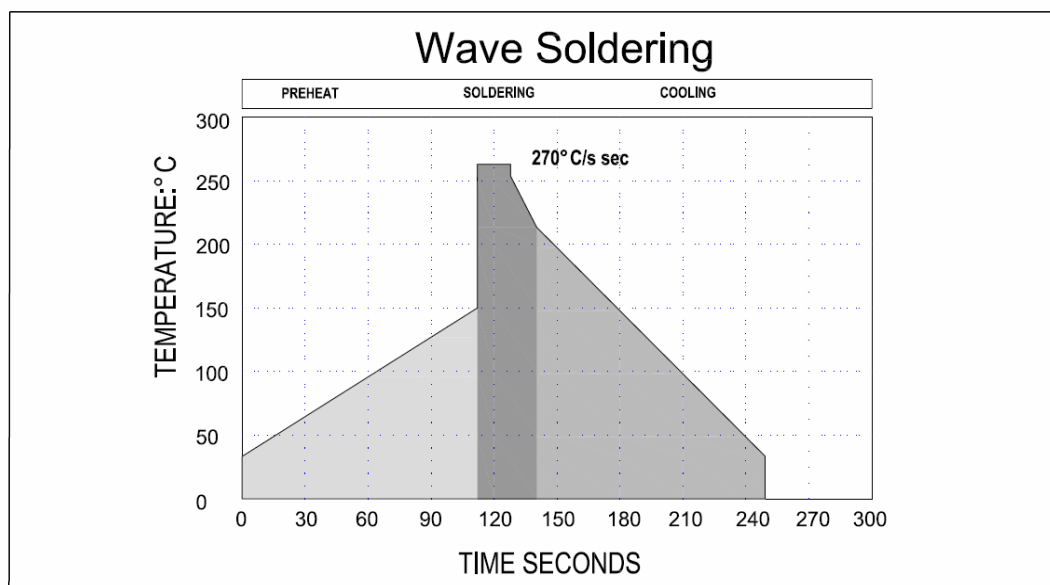
#### SMD gullwing terminal



#### 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

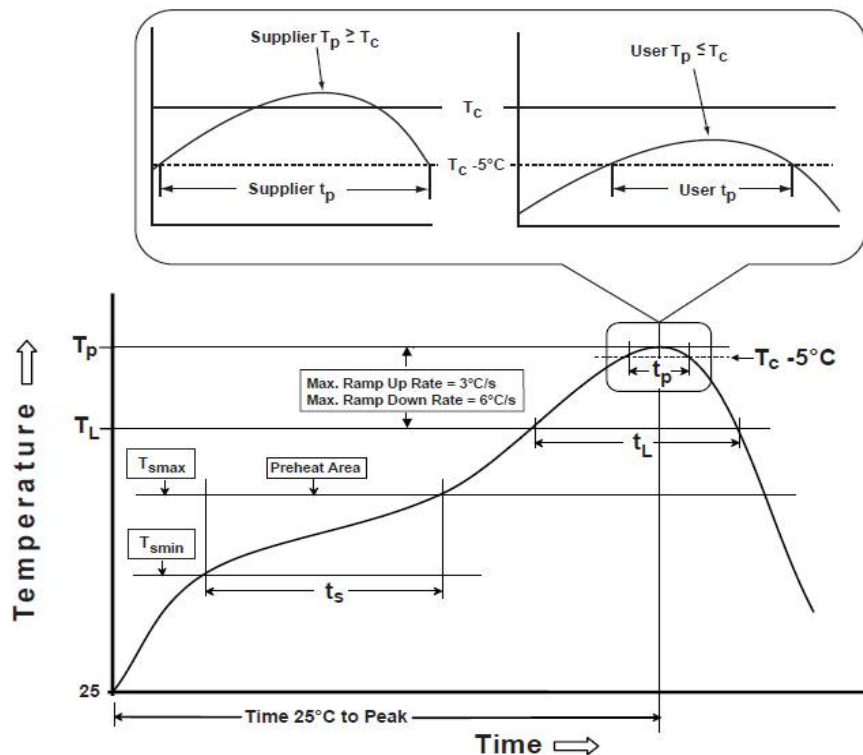
| Profile Feature  | Pb-Free Assembly  |
|--|---|
| <b>Preheat / Soak</b>  |   |
| Temperature Min ( $T_{Smin}$ )   | 150   |
| Temperature Max ( $T_{Smax}$ )   | 200   |
| Time(ts) from ( $T_{Smin}$ to $T_{Smax}$ )                                   | 60 ~120 seconds   |
| Ramp-up Rate ( $T_L$ to $T_p$ )  | 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<br>Classification temp:260 (Package Thickness:>2.5mm)<br>For suppliers $T_p$ must equal or exceed<br>the Classification temp:250 (Package Thickness:>2.5mm) |
| Time ( $t_p$ ) within 5 of specified<br>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<br>Tact Switch |                      |       | Subminiature Tact Switch-RoHS Compliant |

**Tube Package:**

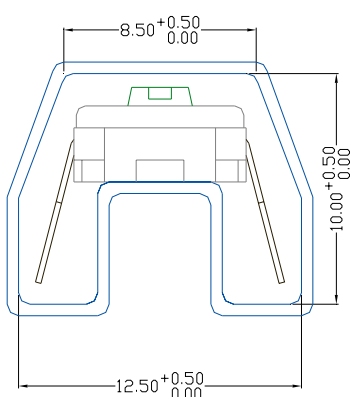
TE0/TE1/TE0/TESM0/TE0/TE1/TE0/TE1-R

(Tube = 400mm L)

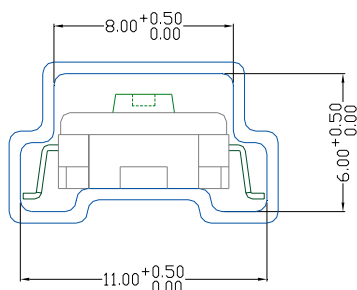
| P/N   | TE0   | TE1   | TES0  | TES1  | TE1-R |
|-------|-------|-------|-------|-------|-------|
| TUBE  | 50    | 50    | 50    | 50    | 50    |
| BOX   | 3200  | 3200  | 5000  | 5000  | 3300  |
| CTN 1 | 6400  | 6400  | 10000 | 10000 | 6600  |
| CTN 2 | 12800 | 12800 | 20000 | 20000 | 13200 |

**TUBE**

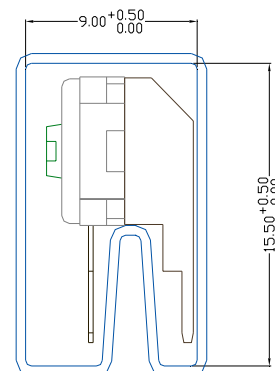
**Thru-hole**



**SMD**

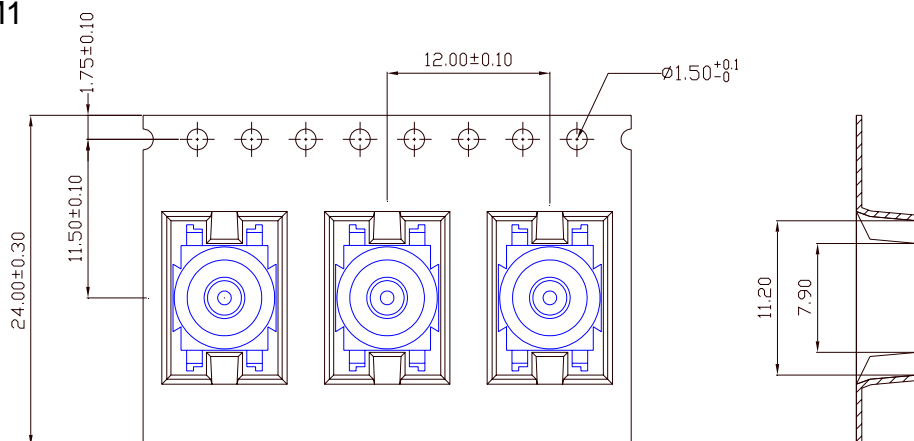


**Right Angle**



**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

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[6407-250V-25343P](#) [ADTSM31NVTR](#) [2-1977120-7](#) [TSJW-5.2-260-TR](#) [Y651050400P](#) [KMT011MNGJLHS](#) [70-201.0](#) [ADTSG648NV](#)  
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[Y31C01402FPLFS](#) [PTS645SK50SMTR92](#) [ADTSM32NVB](#) [KMS233GPWTLFG](#) [Y78B64124FP](#) [Y33A812C5FP LFT](#) [Y56B2D120FP LFS](#)  
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[KT11P4SA1M35 LFG SS-FORM](#)