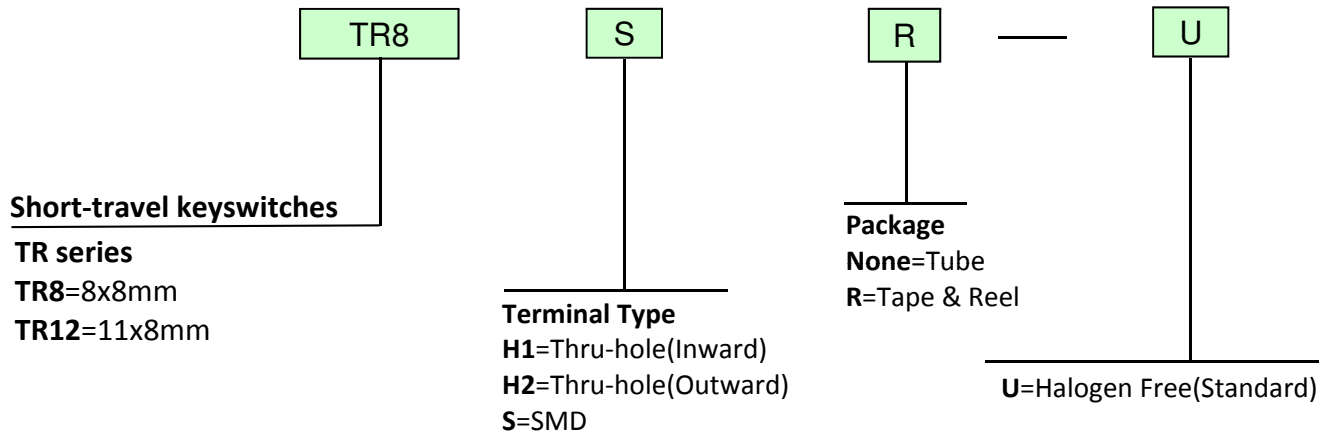


MODEL	SPECIFICATION		Page
TR series	Short-travel Keyswitches	SP-001	1/3
Short-travel Keyswitches	RoHS&REACH Compliant & Halogen Free		

Order Information

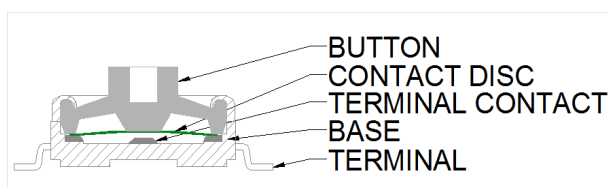


Specifications

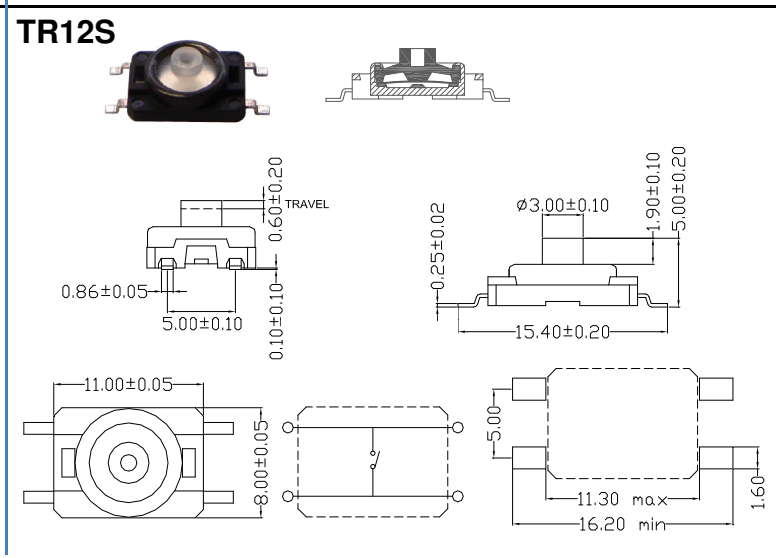
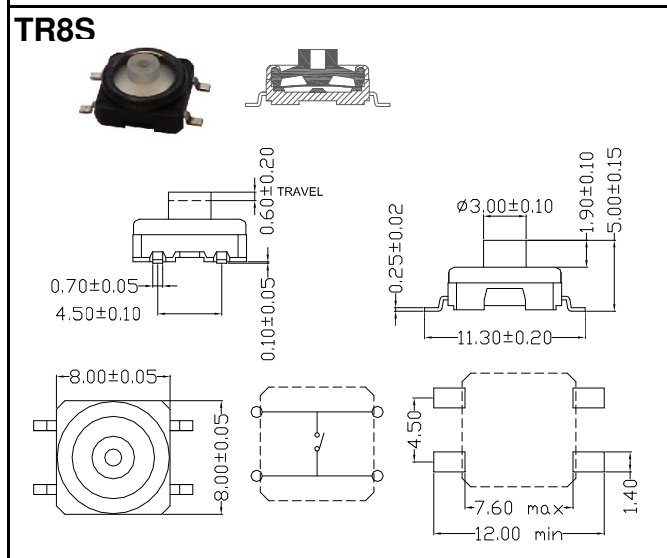
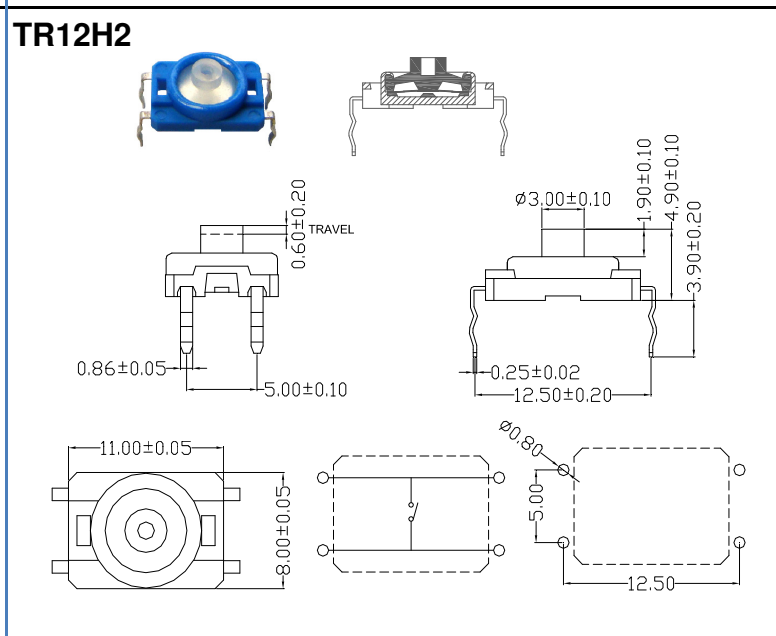
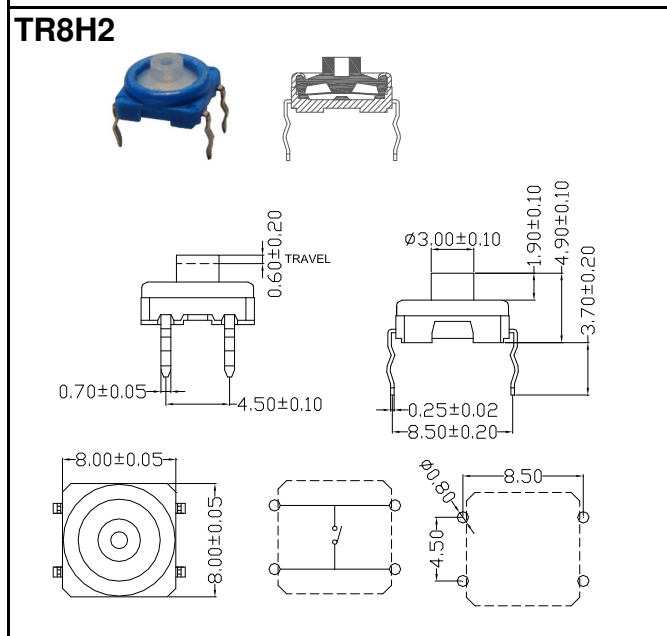
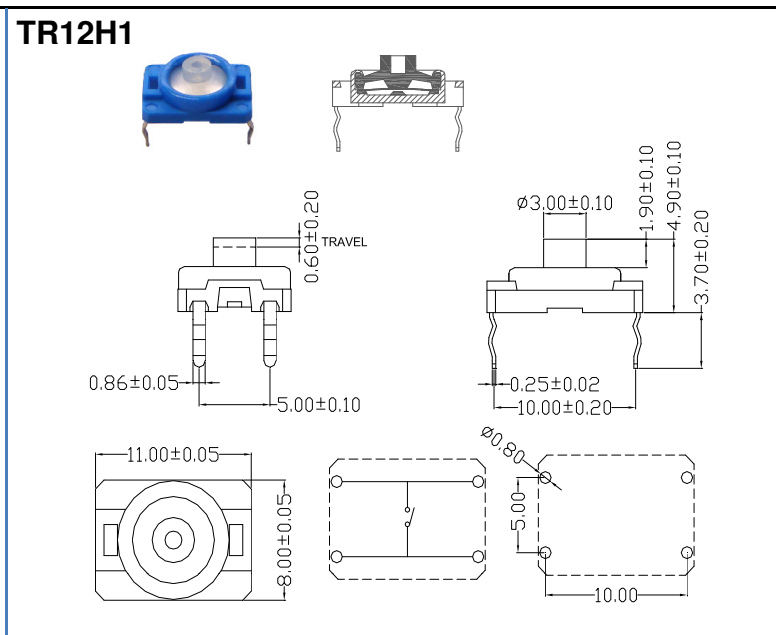
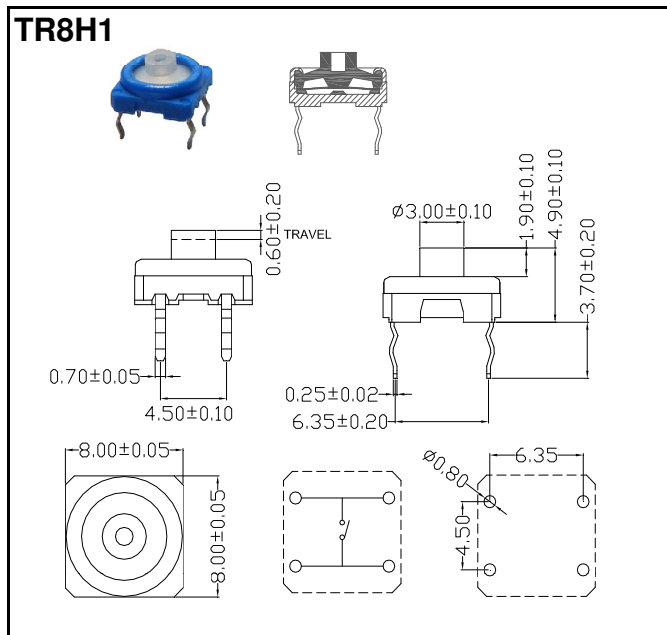
◆ Contact Rating	.....42V AC/DC, 100mA
◆ Contact Resistance	.....100mΩ
◆ Insulation Resistance	.....100mΩ at 100 VDC
◆ Dielectric Strength	.....250VDC, 50Hz for the duration of 1 minute
◆ Operating Temperature	.....-40°C to+ 80°C
◆ Mechanical Life	.....5,000,000 operations
◆ Push Force	.....3.5N±0.6N
◆ Travel	.....0.60±0.20mm
◆ Mounting	.....on pc-board
◆ Waterproof	.....Meet IP67

Materials:

◆ Button	..... Silicone, Natural color
◆ Base Thru-hole	..... Thermoplastic UL 94 rate, Blue
SMD	..... Thermoplastic UL 94 rate, Black
◆ Contact Disc.	..... Stainless steel, Silver Plated
◆ Terminal Contact	..... Brass, 1u" Gold-plated
◆ Terminal	..... Brass, Tin-plated



MODEL	SPECIFICATION	Page
TR series Short-travel Keyswitches	Short-travel Keyswitches RoHS&REACH Compliant & Halogen Free	SP-002 2/3



MODEL	SPECIFICATION		Page
TR series	Short-travel Keyswitches	SP-003	3/3
Short-travel Keyswitches	RoHS&REACH Compliant & Halogen Free		

Soldering Information

- ◆ Hand Soldering
Soldering iron 30W or under at 350°C for 3 sec max or at 270°C for 5 sec max.
- ◆ Reflow Soldering
Please refer below "Classification Reflow Soldering Profiles"
Available 1 times process
- ◆ Wave Soldering
Please refer below "Classification Wave Soldering Profiles"

The table copy from IPC/JEDEC J-STD-020 D.1

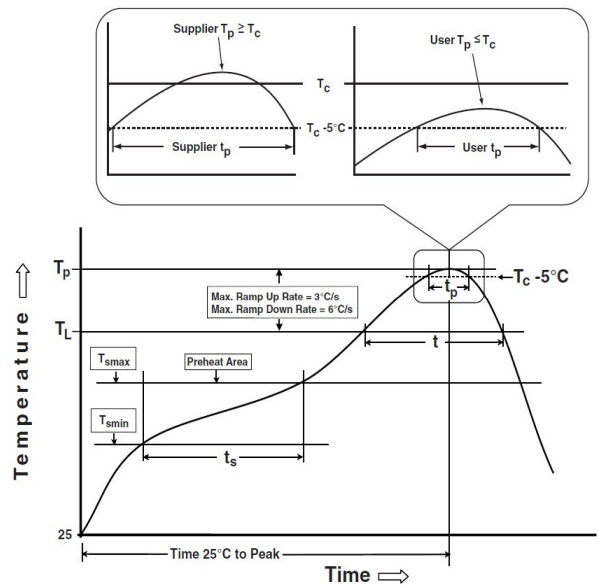
Profile Feature	Pb-Free Assembly
Preheat / Soak	
Temperature Min (T_{smin})	150°C
Temperature Max (T_{smax})	200°C
Time(t_s) from (T_{smin} to T_{smax})	60 ~120 seconds
Ramp-up Rate (T_L to T_p)	3°C/second max
Liquidous temperature (T_L)	217°C
Time (t_L) maintained above to T_L	60 ~ 150 seconds
Peak package body temperature (T_p)	For users T_p must not exceed the Classification temp:250°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.

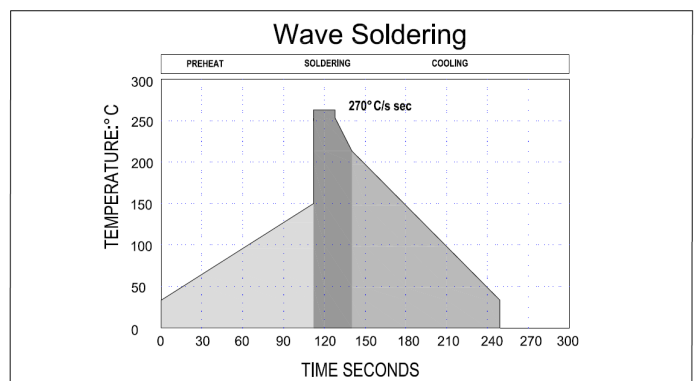
Box Dimension:

- ◆ Tube57.0cm x 13.0cm x 12.5cm
- ◆ Reel34.0cm x 13.0cm x 15.5cm
- ◆ Tube
2 Box.....58.5cm x 28.0cm x 15.0cm
4 Box.....58.5cm x 28.0cm x 27.0cm
- ◆ Reel36.0cm x 27.5cm x 37.0cm

Classification Reflow Soldering



Classification Wave Soldering



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