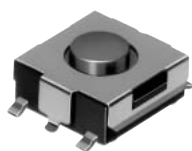


SKHM Series



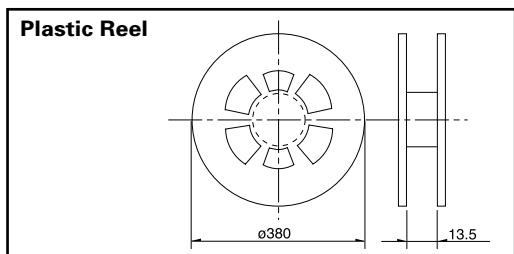
Total hight of 3.1mm. Surface mount package with ground terminal.

Radial
Type**Product Line**

| Product No. | Operating force | Operating direction | Travel (mm) | Rating (max.) | Rating (min.) | Operating life (5mA 12V DC) | Initial contact resistance | Stem color | Minimum order unit (pcs.) |
|-------------|-----------------|---------------------|-------------|----------------|----------------|-----------------------------|----------------------------|------------|---------------------------|
| SKHMQKE010 | 0.98N | Vertical | 0.25 | 50mA 12V DC | 10μ A 1V DC | 500,000cycles | 100m max. | Black | 3,000 |
| SKHMQLE010 | 1.57N | | | | | 300,000cycles | | Green | |
| SKHMQME010 | 2.35N | | | | | 200,000cycles | | Red | |

■ Specification of Embossed Taping Package (Taping Packaging for Auto-insertion)

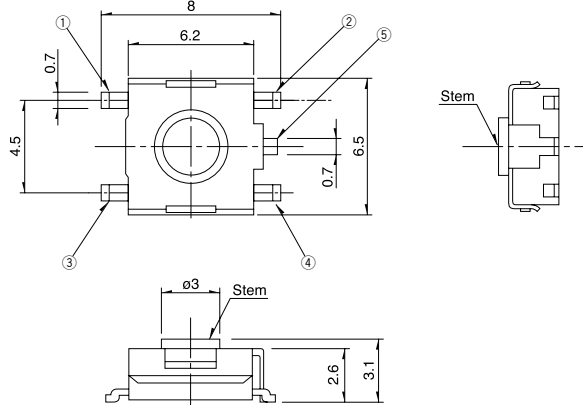
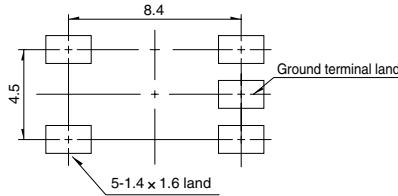
Unit:mm



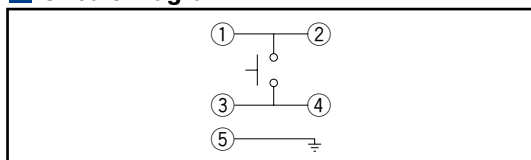
| Number of packages(pcs.) | | | Tape width (mm) |
|---------------------------|------------------|---------------------------|----------------------|
| 1 reel | 1 case /Japan | 1 case /export packing | |
| 3,000 | 30,000 | 30,000 | 12 |

■ Dimensions

Unit:mm

| Style | PC board land dimensions (Viewed from switch mounting face) |
|---|--|
|  <p>Top view dimensions: Overall width 8, mounting hole spacing 6.2, mounting hole diameter 0.7, overall height 6.5, mounting hole offset 0.7. Features are numbered 1 through 5.</p> <p>Side view dimension: Stem diameter $\phi 3$.</p> <p>Front view dimensions: Mounting flange width 2.6, total width 3.1.</p> |  <p>PC board land dimensions (Viewed from switch mounting face):</p> <ul style="list-style-type: none"> Overall width: 8.4 Overall height: 4.5 Terminal pitch: 5-1.4 x 1.6 land Ground terminal land |

■ Circuit Diagram














Note

1. Please place purchase orders for taping products per minimum order unit (1 reel or a case).
2. For 330mm diameter reel requirements, please contact us.

Refer to **P.306** for soldering conditions.

List of Varieties

Sharp Feeling Type

| Series | | | SKSD | SKRN | SKSE | SPEE | SKRK | SKRP | SKQM | SKQY | SKRA | SKHM | SKHU |
|-----------------------------------|--------------------------|---|--|---|---|---|---|---|--|---|---|---|---|
| Photo | | |  |  |  |  |  |  |  |  |  |  |  |
| Type | | | Surface mount | | | | | | | | | | |
| Features | | | Double action | | Horizontal type Double action | | Compact size Low-profile | High operation force Compact size | Compact size | | Middle stroke | | Dust-proof type is available |
| Operating direction | Vertical | | | | | | | | | | | | |
| | Horizontal | | | | | | | | | | | | |
| Dimensions (mm) | | W | 4.1 | 6 | 5.9 | 4 | 3.9 | 4.2 | 6 | 6.1 | 6.2 | 6.2 | |
| | | D | 3.9 | | 2.87 | 5 | 2.9 | 3.2 | 3.5 | 3.7 | | 6.5 | |
| | | H | 0.6 | 0.9 | 3 | 1.22 | 1.5 | 2.5 | 4.3 | 2.5 | 3.4 | 3.1 | 2.5 |
| Operation force coverage | | | 1N 5N | | | | See the relevant pages for respective product descriptions | | ↕ | ↕ | ↕ | ↕ | ↕ |
| Ground terminal | | | | | | | | | | | | | |
| Operating temperature range | | | -30 to +85 | | | -10 to +60 | | -30 to +85 | | | | | |
| Electrical performance | Insulation resistance | | 100M min. 100V DC | | | 10M min. 100V DC | | 100M min. 100V DC | | | | | |
| | Voltage proof | | 250V AC for 1min. SKSD/SE : 100V AC for 1min. | | | 100V AC for 1min. | | 250V AC for 1min. | | | | | |
| Durability | Vibration | | 10 to 55 to 10Hz/min., the amplitude is 1.5mm for all the frequencies, in the 3 direction of X, Y and Z for 2hours respectively | | | | | | | | | | |
| | Lifetime | | Shall be in accordance with individual specifications. | | | | | | | | | | |
| Environmental performance | Cold | | -30 ± 2 for 96h | | | -40 ± 2 for 96h | | -30 ± 2 for 96h | | | | | |
| | Dry heat | | 80 ± 2 for 96h | | | 85 ± 2 for 96h | | 80 ± 2 for 96h | | | | | |
| | Damp heat | | 60 ± 2 , 90 to 95%RH for 96h | | | 40 ± 2 , 90 to 95%RH for 96h | | 60 ± 2 , 90 to 95%RH for 96h | | | | | |
| Page | | | 278 | 279 | 280 | 84 | 281 | 282 | 283 | 284 | 285 | 286 | 287 |

W : Width. The most outer dimension excluding terminal portion.
D : Depth. The most outer dimension excluding terminal portion.
H : Height. The minimum dimension if there are variances.

| | |
|---|-----|
| TACT Switch™ Soldering Conditions | 306 |
| TACT Switch™ Cautions | 307 |
| Product Line of Knob for TACT Switch™ | 308 |

Note

The automotive operating temperature range to be individually discussed upon request.

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

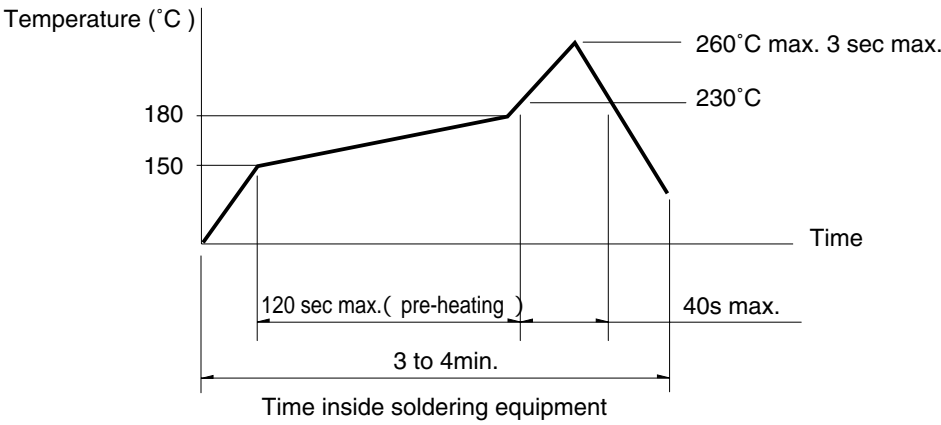
Custom-
ProductsSharp
FeelingSoft
FeelingSnap-in
TypeSurface
Mount TypeRadial
Type

Soldering Conditions

Condition for Reflow

Available for Surface Mount Type.

1. Heating method: Double heating method with infrared heater.
2. Temperature measurement: Thermocouple 0.1 to 0.2 CA(K)or CC(T)at solder joints(copper foil surface). A heat resistive tape should be used to fix thermocouple.
3. Temperature profile



Note

1. The above temperature shall be measured on the mounting surface of a PC board. There are cases where the PC board's temperature greatly differs from that of the switch, depending on the material, size, thickness of PC boards and others. The above-stated conditions shall also apply to switch surface temperatures.
2. Soldering conditions differ depending on reflow soldering machines. Prior verification of soldering condition is highly recommended.

Conditions for Auto-dip

Available for Snap-in Type and Radial Type
(Except SKHJ, SKHL, SKQJ, SKQK, SKEG series)

| Items | Condition |
|------------------------|--|
| Flux built-up | Mounting surface should not be exposed to flux |
| Preheating temperature | Ambient temperature of the soldered surface of PC board. 100 max. |
| Preheating time | 60s max. |
| Soldering temperature | 260 max. |
| Duration of immersion | 5s max. |
| Number of soldering | 2times max. |

Manual Soldering (Except SKRT Series)

| Items | Condition |
|----------------------------|-----------|
| Soldering temperature | 350 max. |
| Duration of soldering | 3s max. |
| Capacity of soldering iron | 60W max. |

Notes

1. Consult with us for availability of TACT Switch™ washing.
2. Prevent flux penetration from the top side of the TACT Switch™.
3. Switch terminals and a PC board should not be coated with flux prior to soldering.
4. The second soldering should be done after the switch is stable with normal temperature.
5. Use the flux with a specific gravity of min 0.81.
(EC-19S-8 by TAMURA Corporation, or equivalents.)