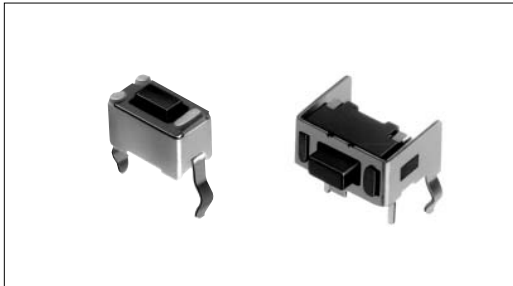


TACT Switch™ 6 × 3.5mm Compact (Snap-in Type)

SKHL Series



A vertical and horizontal type switch contributing to high density mounting.



Product Line

Vertical Type

| Product No. | Operating force | Operating direction | Travel (mm) | Rating (max.) | Rating (min.) | Operating life (5mA 12V DC) | Initial contact resistance | Stem color | Stem height | Minimum order unit (pcs.) | Drawing No. |
|-------------|-----------------|---------------------|-------------|---------------|---------------|-----------------------------|----------------------------|------------|-------------|---------------------------|-------------|
| SKHLAAA010 | 0.98N | Vertical | 0.25 | 50mA 12V DC | 10μA 1V DC | 50,000 cycles | 500m max. | Black | h=4.3mm | 1,000 | 1 |
| SKHLACA010 | 1.57N | | | | | | | Dark gray | | | |
| SKHLAJA010 | 2.55N | | | | | | | Red | | | |
| SKHLABA010 | 0.98N | | | | | | | Black | h=5mm | | |
| SKHLADA010 | 1.57N | | | | | | | Dark gray | | | |
| SKHLAKA010 | 2.55N | | | | | | | Red | | | |

Horizontal Type

| Product No. | Operating force | Operating direction | Travel (mm) | Rating (max.) | Rating (max.) | Operating life (5mA 5V DC) | Initial contact resistance | Stem color | Terminal length | Minimum order unit (pcs.) | Drawing No. |
|-------------|-----------------|---------------------|-------------|---------------|---------------|----------------------------|----------------------------|------------|---------------------------------|---------------------------|-------------|
| SKHLLAA010 | 0.98N | Horizontal | 0.25 | 50mA 12V DC | 10μA 1V DC | 30,000 cycles | 500m max. | Black | ℓ = 3.5mm (PC board t : 1.6) | 1,000 | 2 |
| SKHLLBA010 | 1.57N | | | | | | | Dark gray | | | |
| SKHLLFA010 | 2.55N | | | | | | | Red | | | |
| SKHLLCA010 | 0.98N | | | | | | | Black | ℓ = 2.5mm (PC board t : 1.0) | | |
| SKHLLDA010 | 1.57N | | | | | | | Dark gray | | | |

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products

Sharp
Feeling

Soft
Feeling

Snap-in
Type

Surface
Mount Type

Radial
Type


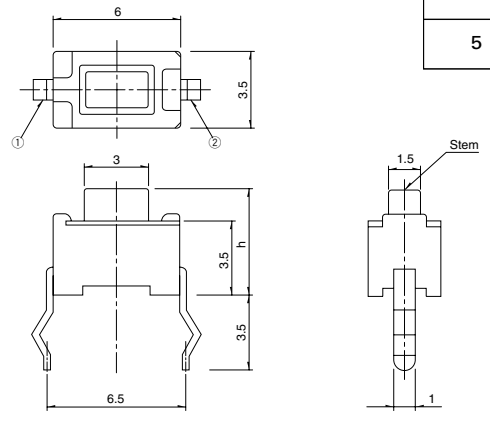
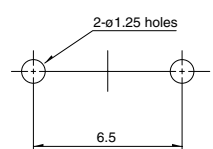

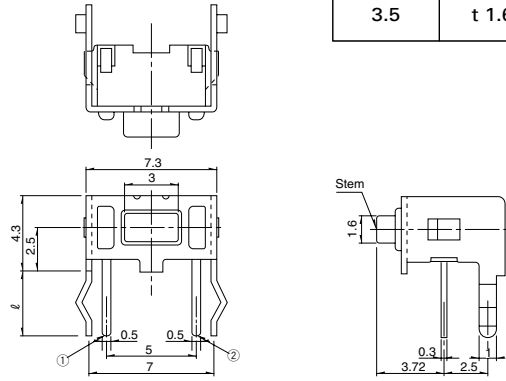
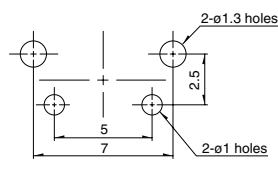
Refer to P.306 for soldering conditions.

- Detector
- Push
- Slide
- Rotary
- Encoders
- Power
- Dual-in-line Package Type
- TACT Switch™**
- Custom-Products

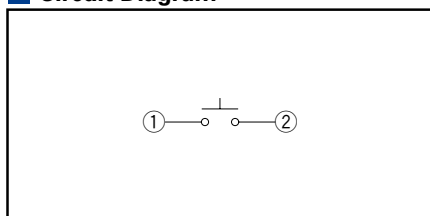
- Sharp Feeling
- Soft Feeling
- Snap-in Type**
- Surface Mount Type
- Radial Type

Dimensions

Unit:mm












| No. | Photo | Style | PC board mounting hole dimensions (Viewed from switch mounting face) | | | | | | |
|-----|---|--|---|----------|-----|---|-----|-------|---|
| 1 |  | <p>Vertical type</p>  <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>h</td></tr> <tr><td>4.3</td></tr> <tr><td>5</td></tr> </table> | h | 4.3 | 5 |  | | | |
| h | | | | | | | | | |
| 4.3 | | | | | | | | | |
| 5 | | | | | | | | | |
| 2 |  |  <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>ℓ</td><td>PC board</td></tr> <tr><td>2.5</td><td>t 1.0</td></tr> <tr><td>3.5</td><td>t 1.6</td></tr> </table> | ℓ | PC board | 2.5 | t 1.0 | 3.5 | t 1.6 |  |
| ℓ | PC board | | | | | | | | |
| 2.5 | t 1.0 | | | | | | | | |
| 3.5 | t 1.6 | | | | | | | | |

Circuit Diagram



List of Varieties

Sharp Feeling Type

| Series | SKHR | SKHL | SKHH | SKHW | SKRD | SKQJ | SKHL | SKHH | SKQJ | SKHJ | SKQB | |
|-----------------------------|---|---|---|---|---|---|--|---|---|---|---|--|
| Photo |  |  |  |  |  |  |  |  |  |  |  | |
| Type | Snap-in | | | | | | | | | | | |
| Features | | | | Dust-proof type | Horizontal type | Horizontal type | | | With LED | Water-proof | | |
| Operating direction | Vertical | | | | | | | | | | | |
| | Horizontal | | | | | | | | | | | |
| Dimensions (mm) | W | 4.5 | 6 | 6 | 6.2 | 6.6 | 7.3 | 7.5 | 8 | 10 | | |
| | D | | 3.5 | | 7.15 | | 7.22 | 7.85 | | | | |
| | H | 3.8 | 4.3 | | 7.4 | 5 | 4.3 | 7.4 | 7.3 | 8.5 | 5 | |
| Operation force coverage | 1N | ↕ | ↕ | ↕ | ↕ | ↕ | ↕ | ↕ | ↕ | ↕ | ↕ | |
| | 5N | | | ↕ | | | | | | | | |
| Ground terminal | | | | | | | | | | | | |
| Operating temperature range | -20 to +70 SKHJ/HL(Vertical Type) /QJ | | | | | | | | | | | |
| | -30 to +85 | | | | | | | | | | | |
| Electrical performance | Insulation resistance | 100M min. 100V DC | | | | | | | | | | |
| | Voltage proof | 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 | | | | | | | | | | |
| | Dry heat | 80 ± 2 for 96h | | | | | | | | | | |
| | Damp heat | 60 ± 2 , 90 to 95%RH for 96h | | | | | | | | | | |
| Page | 252 | 253 | 255 | 259 | 260 | 261 | 253 | 255 | 261 | 263 | 265 | |

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 Conditions306
 TACT Switch™ Cautions307
 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-Products

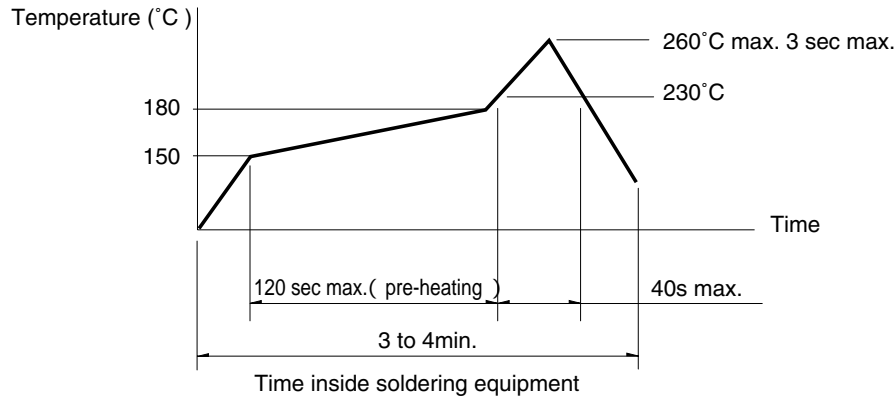
- Sharp Feeling
- Soft Feeling
- Snap-in Type
- Surface Mount Type
- Radial Type

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.

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products

Sharp
Feeling

Soft
Feeling

Snap-in
Type

Surface
Mount Type

Radial
Type

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 fluk |
| 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.)