

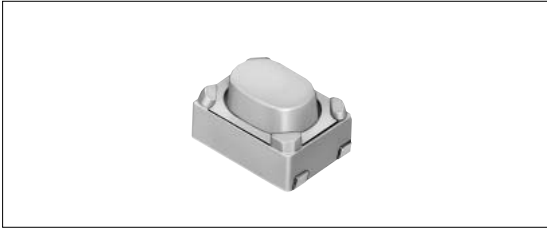
TACT Switch™ 4.2 × 3.2mm Compact High Operating Force (Surface Mount Type)

SKRP Series



High operation force satisfy the needs in automotive applications. Wide stem & good mountability.

Detector
Push
Slide
Rotary



Encoders

Power

Dual-in-line
Package Type

TACT Switch™

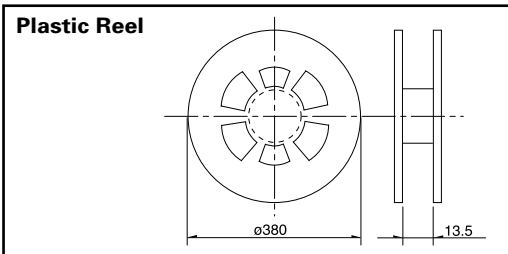
Custom-
Products

Product Line

| Product No. | Operating force | Operating direction | Travel (mm) | Rating (max.) | Rating (min.) | Operating life (5mA 5V DC) | Initial contact resistance | Stem color | Minimum order unit (pcs.) |
|-------------|-----------------|---------------------|-------------|----------------|---------------|----------------------------|----------------------------|------------|---------------------------|
| SKRPABE010 | 1.57N | Vertical | 0.2 | 50mA 16V DC | 10μA 1V DC | 100,000cycles | 500m max. | Natural | 4,000 |
| SKRSPACE010 | 2.55N | | | | | 50,000cycles | | | |
| SKRPADE010 | 4N | | | | | 100,000cycles | | Black | |

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

Reel Size Unit:mm



| Number of packages(pcs.) | | | Tape width (mm) |
|----------------------------|---------------|------------------------|-----------------|
| 1 reel | 1 case /Japan | 1 case /export packing | |
| 4,000 | 40,000 | 40,000 | 12 |

Sharp
Feeling

Soft
Feeling

Snap-in
Type

Surface
Mount Type

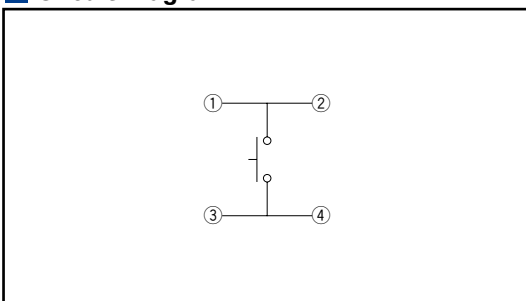
Radial
Type

Dimensions

Unit:mm

| Style | PC board land dimensions (Viewed from switch mounting face) |
|-------|---|
| | |

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 | See the relevant pages for respective product descriptions | | | | ↕ | ↕ | ↕ | ↕ | ↕ | ↕ | ↕ |
| | 5N | | | | | ↕ | ↕ | ↕ | ↕ | ↕ | ↕ | |
| 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 Conditions306
 TACT Switch™ Cautions307
 Product Line of Knob for TACT Switch™308

- 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

Note

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

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.)

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