

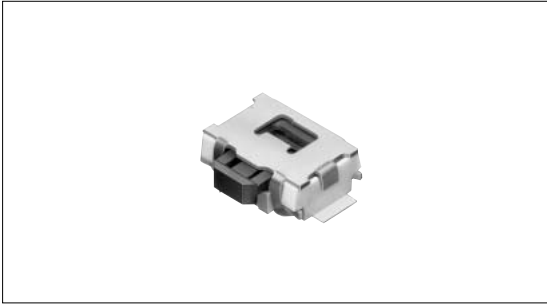
# TACT Switch™ 1.5mm Height Sidepush™ (Surface Mount Type)

SKRE Series



Horizontal type with 3.9×3.55×1.5mm dimension.

- Detector
- Push
- Slide
- Rotary
- Encoders
- Power



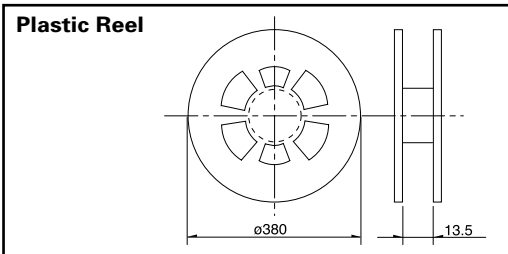
- Dual-in-line Package Type
- TACT Switch™
- Custom-Products

## Product Line

| Product No. | Operating force | Operating direction | Travel (mm) | Rating (max.)  | Rating (min.) | Operating life (5mA 5V DC) | Initial contact resistance | Variety              | Minimum order unit (pcs.) |
|-------------|-----------------|---------------------|-------------|----------------|---------------|----------------------------|----------------------------|----------------------|---------------------------|
| SKRELHE010  | 1.57N           | Horizontal          | 0.2         | 50mA<br>12V DC | 10μA<br>1V DC | 100,000cycles              | 100m max.                  | Without guide bosses | 5,000                     |
| SKRELFE010  | 2.16N           |                     |             |                |               |                            |                            | With guide bosses    |                           |
| SKRELJE010  | 1.57N           |                     |             |                |               |                            |                            | With guide bosses    |                           |
| SKRELGE010  | 2.16N           |                     |             |                |               |                            |                            | With guide bosses    |                           |

## 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 |                   |
| 5,000                       | 50,000        | 50,000                 | 12                |

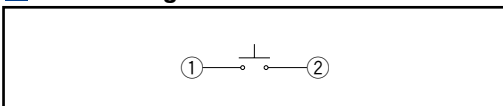
- Sharp Feeling
- Soft Feeling
- Snap-in Type
- Surface Mount Type
- Radial Type

## Dimensions

Unit:mm

| Style | PC board mounting hole and 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                       | SKSC  | SKRE  | SKRT   | SKRV  | SKRH  | SKQU  | SKRG  | SKQK  | SKQN  | SKRC  |      |     |
|------------------------------|---|---|--|---|---|---|---|---|---|---|------|-----|
| Detector                     |  |  |   |  |  |  |  |  |  |  |      |     |
| Push                         | Surface mount   |   |  |   |   |   | Radial  |   |   |   |      |     |
| Slide                        | Low-profile<br>Horizontal type  |   | Horizontal<br>type   | 4-direction switch + push<br>switch   |   |   | Round terminal<br>type  |   | Round terminal<br>Horizontal type   | Water-proof   |      |     |
| Rotary                       | Operating<br>direction  | Vertical  |  |   |   |   |   |   |   |   |      |     |
| Encoders                     |   | Horizontal  |  |   |   |   |   |   |   |   |      |     |
| Power                        | Dimensions<br>(mm)  | W   | 3.5  | 3.9   | 4.5   | 6.45  | 7.35  | 10  | φ6.2  | 6.6   | 7.3  | φ9  |
| Dual-in-line<br>Package Type |   | D   | 3.55   |   |   | 6.4   | 7.5   |   |   |   | 6.85 |     |
| TACT Switch™                 |   | H   | 1.25   | 1.5   | 3.3   | 4   | 5   | 7.1   | 4.3   | 5   | 7.1  | 13  |
| Custom-<br>Products          | Operation<br>force<br>coverage  | 1N  | ↕  | ↕   | ●   | See the relevant pages for<br>respective product<br>descriptions                  |   |   | ↕   | ↕   | ↕    | ↕   |
|                              |   | 5N  |  |   |   |   |   |   |   |   |      |     |
|                              | Ground terminal   |   |  |   |   |   |   |   |   |   |      |     |
|                              | Operating<br>temperature<br>range   |   | -20 to +70 SKRV/QK   |   |   |   |   |   |   |   |      |     |
|                              |   |   | -30 to +85   |   |   |   |   |   |   |   |      |     |
| Sharp<br>Feeling             | Electrical<br>performance   | Insulation<br>resistance  | 100M min. 100V DC  |   |   |   |   |   |   |   |      |     |
| Soft<br>Feeling              |   | Voltage<br>proof  | 250V AC for 1min.<br>SKSC/RE/RV/RH : 100V AC for 1min.   |   |   |   |   |   |   |   |      |     |
| Snap-in<br>Type              | Durability  | Vibration   | 10 to 55 to 10Hz/min., the amplitude is 1.5mm for all the frequencies,<br>in the 3 direction of X, Y and Z for 2hours respectively |   |   |   |   |   |   |   |      |     |
| Surface<br>Mount Type        |   | Lifetime  | Shall be in accordance with individual specifications.   |   |   |   |   |   |   |   |      |     |
| Radial<br>Type               | Environmental<br>performance  | Cold  | -30 ± 2 for 96h  |   |   |   |   |   |   |   |      |     |
|                              |   | Dry heat  | 80 ± 2 for 96h   |   |   |   |   |   |   |   |      |     |
|                              |   | Damp heat   | 60 ± 2 , 90 to 95%RH for 96h   |   |   |   |   |   |   |   |      |     |
|                              | Page  |   | 289  | 290   | 291   | 480   | 481   | 482   | 292   | 294   | 293  | 295 |

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.

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#### 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.<br>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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Snap-in Type  
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