## 4.5 × 3.55mm Sidepush™ (Surface Mount Type)

**SKRT** Series



## Horizontal push with high solder strengh & tactile feeling.



Product Line

| Product No. | Operating force | Operating direction | Travel (mm) | •      |               | Operating life (5mA 5V DC) | Initial contact resistance | Variety              | Minimum order unit ( pcs. ) |  |
|-------------|-----------------|---------------------|-------------|--------|---------------|----------------------------|----------------------------|----------------------|-----------------------------|--|
| SKRTLAE010  | 1.6N            | Horizontal          | 0.2         | 50mA   | 10 <i>μ</i> Α | 100,000cycles              | 500m<br>max.               | With guide<br>bosses | 3.000                       |  |
| SKRTLBE010  | 1.014           | Tiorizontai         | 0.2         | 12V DC | 1V DC         | 100,000cycles              |                            | Without guide bosses | 3,000                       |  |

Slide

**Detector** 

Push

**Rotary** 

**Encoders** 

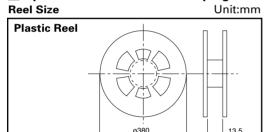
Power

Dual-in-line Package Type

TACT Switch™

Custom-**Products** 

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



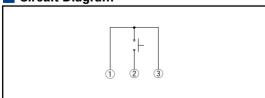
| Num    |                  |                           |                    |  |  |
|--------|------------------|---------------------------|--------------------|--|--|
| 1 reel | 1 case<br>/Japan | 1 case<br>/export packing | Tape width<br>(mm) |  |  |
| 3,000  | 30,000           | 30,000                    | 12                 |  |  |

Dimensions

Unit:mm

PC board mounting hole and land dimensions Style (Viewed from switch mounting face) Prohibitted area of 0.45 copper tracks 2.56 \_ 2 2.4

Circuit Diagram



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

Feeling Soft **Feeling** 

Snap-in Type

Surface Mount Type

> Radial Type

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

## **List of Varieties**

## Sharp Feeling Type

| Series                         |  | SKSC | SKRE  | SKRT   | SKRV               | SKRH   | sкqu | SKRG      | SKQK                   | SKQN     | SKRC                              |             |  |
|--------------------------------|--|------|---|--|--------------------|--|------|-----------|------------------------|----------|-----------------------------------|-------------|--|
|                                | Photo  |      |   |  |                    | •  |      | <b>\$</b> | Ø:                     |          | 888                               | ***         |  |
|                                | Туре   |      |   | Surface mount  |                    |  |      |           | Radial                 |          |                                   |             |  |
|                                | Features   |      |   | profile<br>ntal type                                   | Horizontal<br>type | tal 4-direction switch + push switch                       |      | n + push  | Round<br>terminal type |          | Round terminal<br>Horizontal type | Water-proof |  |
| Oper                           | O Vertical                                       |      |   |  |                    |  |      |           |                        |          |                                   |             |  |
| ating                          | Operating Horiz                                  |      |   |  |                    |  |      |           |                        |          |                                   |             |  |
|                                |  | w    | 3.5   | 3.9  | 4.5                | 6.45   | 7.35 | 10        | φ6.2                   | 6.6      | 7.3                               | φ9          |  |
| Dimension (mm)                 |  | D    |   | 3.55   |                    | 6.4  | 7.5  |           |                        |          | 6.85                              |             |  |
|                                |  | н    | 1.25  | 1.5  | 3.3                | 4  | 5    | 7.1       | 4.3                    | 5        | 7.1                               | 13          |  |
| fo                             | 1N<br>Operation<br>force<br>coverage             |      | <b>‡</b>  | <b>‡</b>   | •                  | See the relevant pages for respective product descriptions |      | 1         | <b>‡</b>               | <b>‡</b> | 1                                 |             |  |
| Grou                           | 5N<br>Ground terminal                            |      |   |  |                    |  |      |           |                        |          |                                   |             |  |
|                                | Operating<br>temperature<br>range                |      | -20 to +70 SKRV/QK  |  |                    |  |      |           |                        |          |                                   |             |  |
|                                |  |      | -30 to +85  |  |                    |  |      |           |                        |          |                                   |             |  |
| Elect                          | Insulation resistance                            |      | 100M min. 100V DC   |  |                    |  |      |           |                        |          |                                   |             |  |
| rical                          | Performance Insulation resistance  Voltage proof |      |   | 250V AC for 1min.<br>SKSC/RE/RV/RH : 100V AC for 1min. |                    |  |      |           |                        |          |                                   |             |  |
|                                |  |      | 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 |  |                    |  |      |           |                        |          |                                   |             |  |
| Vibration  Vibration  Lifetime |  |      | Shall be in accordance with individual specifications.  |  |                    |  |      |           |                        |          |                                   |             |  |
| Env                            | Co   | old  | -30 ± 2 for 96h   |  |                    |  |      |           |                        |          |                                   |             |  |
| Environmental performance      | Dry  | heat | 80 ± 2 for 96h  |  |                    |  |      |           |                        |          |                                   |             |  |
| ental                          | Damp heat  |      |   | 60 ± 2 , 90 to 95%RH for 96h                           |                    |  |      |           |                        |          |                                   |             |  |
|                                | _  |      |   |  |                    |  |      |           |                        |          |                                   |             |  |

W: Width. The most outer dimension excluding terminal portion.

294

293

295

292

D: Depth. The most outer dimension excluding terminal portion.

H: Height. The minimum dimension if there are variances.

TACT Switch™ Cautions .......307

Product Line of Knob for TACT Switch™.....

481

482

## Note

Page

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

291

480

289

290

250

**Detector** 

Push

Slide

**Rotary** 

**Encoders** 

Power

Dual-in-line Package Type

TACT Switch<sup>11</sup>

Custom-

**Products** 

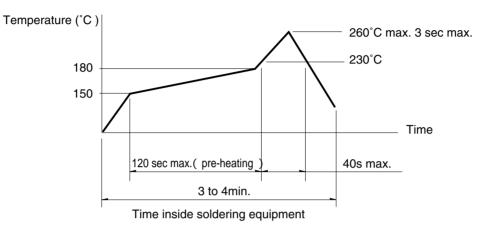
Snap-in Type Surface Mount Type Radial Type

## **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.

# Sharp Feeling 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<br>should not be exposed to fluk                       |  |  |
| Preheating temperature | Ambient temperature of the soldered<br>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  $\widetilde{Switch}^{TM}$ .
- 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.)