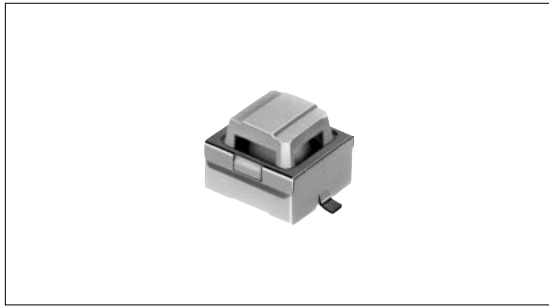


# TACT Switch™ High Operation Force with 5mm Height (Surface Mount Type)

SKPG Series



Low-profile Surface mount type with high operation force most suitable for in-car components.



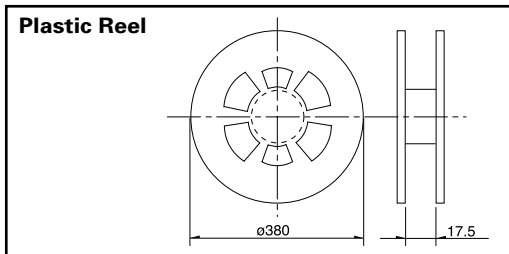
## Product Line

| Product No. | Operating force | Operating direction | Travel (mm) | Rating (max.) | Rating (min.) | Operating life (5mA 5V DC) | Initial contact resistance | Rubber color | Minimum order unit (pcs.) |
|-------------|-----------------|---------------------|-------------|---------------|---------------|----------------------------|----------------------------|--------------|---------------------------|
| SKPGACE010  | 1.18N           | Vertical            | 1.3         | 5mA<br>12V DC | 10μA<br>1V DC | 50,000cycles               | 1k max.                    | Light blue   | 1,200                     |
| SKPGAAE010  | 2.45N           |                     |             |               |               |                            |                            | Green        |                           |
| SKPGABE010  | 2.94N           |                     |             |               |               |                            |                            | Blue         |                           |

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

Reel Size

Unit:mm



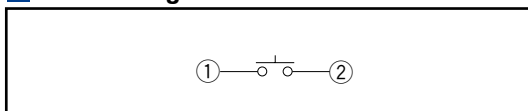
| Number of packages( pcs. ) |               |                        | Tape width (mm) |
|----------------------------|---------------|------------------------|-----------------|
| 1 reel                     | 1 case /Japan | 1 case /export packing |                 |
| 1,200                      | 9,600         | 9,600                  | 16              |

## Dimensions

Unit:mm

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

## Circuit Diagram



## Note

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

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

# List of Varieties

## Soft Feeling Type

| Series                      |                       | SKEG  | SKPE  | SKEG  | SKEY  | SKPF  | SKPM  | SKPN   | SKPG  | SKPL  | SKPD  |
|-----------------------------|-----------------------|---|---|---|---|---|---|--|---|---|---|
| Photo                       |                       |    |  |  |  |  |  |  |  |  |  |
| Type                        |                       | Snap-in   |   |   |   |   | Surface mount   |  |   | Radial  |   |
| Features                    |                       |   |   |   | Horizontal type   | High operation force and long stroke  | Low contact resistance  |  | Round terminal and low contact resistance   |   |   |
| Operating direction         | Vertical              |   |   |   |   |   |   |  |   |   |   |
|                             | Horizontal            |   |   |   |   |   |   |  |   |   |   |
| Dimensions (mm)             | W                     |   | 6.6   | 7.5   | 7.8   | 8   | 5.9   | 6  | 6.6   | φ6.45   | 7.8   |
|                             | D                     | 6   | 6.3   | 9.9   |   | 9   | 6   | 6.7  | 6.3   |   |   |
|                             | H                     | 7   | 5   | 7.3   | 5   | 10  | 5   | 7  | 5   |   |   |
| Contact                     |                       | Carbon  |   |   |   |   | Silver  |  | Carbon  | Silver  | Carbon  |
| Operation force coverage    | 1N                    | ↕   | ↕   | ↕   | ↕   | ↕   | ↕   | ↕  | ↕   | ↕   | ↕   |
|                             | 5N                    |   |   |   |   | ↕   |   |  |   |   |   |
| Ground terminal             |                       |   |   |   |   |   |   |  |   |   |   |
| Operating temperature range |                       | -20 to +70 SKEG   |   |   |   |   |   |  |   |   |   |
|                             |                       | -40 to +90  |   |   |   |   |   |  |   |   |   |
| Electrical performance      | Insulation resistance | 100M min. 100V DC<br>SKEY/PD : 50M min. 100V DC   |   |   |   |   |   |  |   |   |   |
|                             | Voltage proof         | 250V AC for 1min. SKPN : 200V AC for 1min.<br>SKEY/PD : 100V 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                        |                       | 296   | 298   | 296   | 299   | 300   | 301   | 302  | 303   | 304   | 305   |

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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Detector

Push

Slide

Rotary

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Dual-in-line  
Package Type

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Custom-  
Products

Sharp  
Feeling

Soft  
Feeling

Snap-in  
Type

Surface  
Mount Type

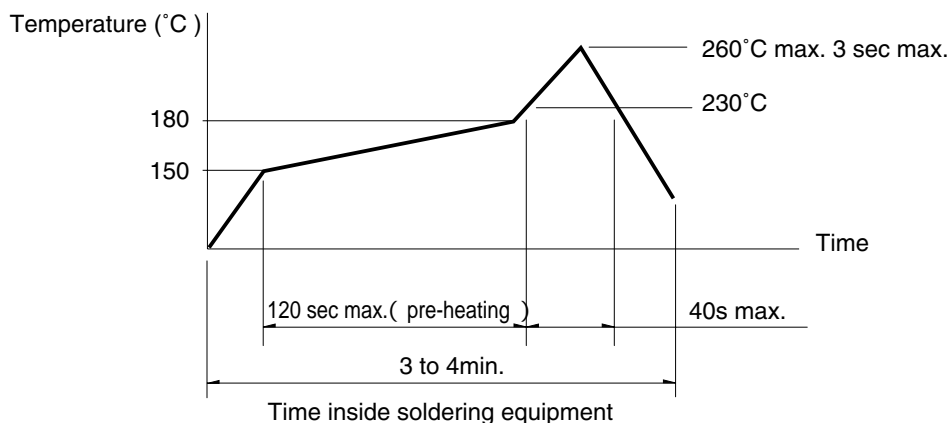
Radial  
Type

## 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.

### 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. )

Detector  
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Custom-Products

Sharp Feeling  
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Snap-in Type  
Surface Mount Type  
Radial Type