

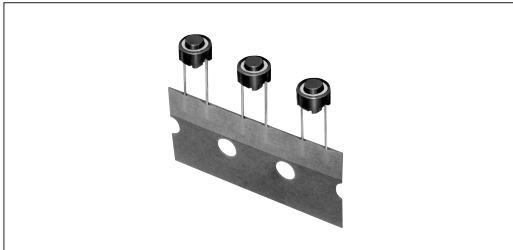
# TACT Switch™ 6.2mm Diameter Round Terminal (Radial Type)

## SKRG Series



Round terminal vertical type with excellent PC board mounting performance.

- Detector
- Push
- Slide
- Rotary
- Encoders



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

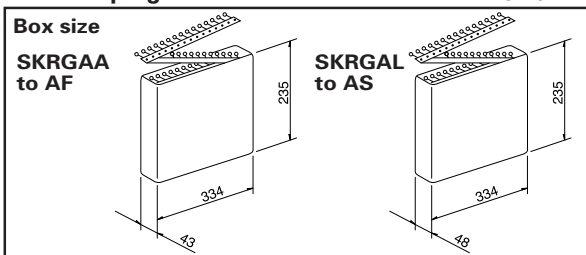
### Product Line

| Product No. | Operating force | Operating direction | Travel (mm) | Rating (max.)  | Rating (min.)  | Operating life (5mA 5V DC) | Initial contact resistance | Stem color | Stem height | Minimum order unit (pcs.) |
|-------------|-----------------|---------------------|-------------|----------------|----------------|----------------------------|----------------------------|------------|-------------|---------------------------|
| SKRGAAD010  | 1.27N           | Vertical            | 0.25        | 50mA<br>12V DC | 10μ A<br>1V DC | 500,000cycles              | 500mΩ<br>max.              | Black      | h=4.3mm     | 2,000                     |
| SKRGABD010  | 1.57N           |                     |             |                |                |                            |                            | White      |             |                           |
| SKRGACD010  | 2.55N           |                     |             |                |                | Gray                       |                            |            |             |                           |
| SKRGADD010  | 1.27N           |                     |             |                |                | Black                      |                            | h=5mm      |             |                           |
| SKRGAED010  | 1.57N           |                     |             |                |                | White                      |                            |            |             |                           |
| SKRGAFD010  | 2.55N           |                     |             |                |                | Gray                       |                            | h=7mm      |             |                           |
| SKRGALD010  | 1.27N           |                     |             |                |                | Black                      |                            |            |             |                           |
| SKRGAMD010  | 1.57N           |                     |             |                |                | White                      |                            |            |             |                           |
| SKRGAND010  | 2.55N           |                     |             |                |                | Gray                       |                            | h=9.5mm    |             |                           |
| SKRGAQD010  | 1.27N           |                     |             |                |                | Black                      |                            |            |             |                           |
| SKRGARD010  | 1.57N           |                     |             |                |                | White                      |                            |            |             |                           |
| SKRGASD010  | 2.55N           |                     |             |                |                | Gray                       |                            |            |             |                           |

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

### Packing Specifications

#### Radial Taping



| Number of packages (pcs.) |               |                        | Export package measurements (mm) |
|---------------------------|---------------|------------------------|----------------------------------|
| 1 box                     | 1 case /Japan | 1 case /export packing |                                  |
| 2,000                     | 20,000        | 20,000                 | SKRGAA to AF<br>353×506×244      |
|                           |               |                        | SKRGAL to AS<br>353×506×269      |

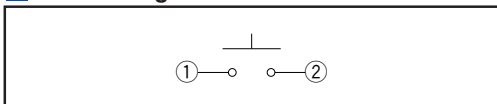
### Dimensions

Unit:mm

| Style | PC board mounting hole dimensions (Viewed from switch mounting face) |     |
|-------|--|-----|
|       | h  | A   |
|       | 4.3  | 3.4 |
|       | 5  | 3.4 |
|       | 7  | 3.2 |
|       | 9.5  | 2.9 |
|       |  |     |



### Circuit Diagram














### Notes

- Please use 1.6mm thick PC boards.
- Please place purchase orders per minimum order unit N (integer).

Refer to P.334 for soldering conditions.

## List of Varieties

### Sharp Feeling Type

| Series                      |                       | SKHU  | SKSC  | SKRE  | SKRT  | SKRV  | SKRH  | SKQU  | SKRG   | SKQK  | SKQN  | SKRC  |    |
|-----------------------------|-----------------------|---|---|---|---|---|---|---|--|---|---|---|----|
| Detector                    | Photo                 |    |  |  |  |  |  |  |  |  |  |  |    |
| Push                        | Type                  | Surface mount   |   |   |   |   |   | Radial  |  |   |   |   |    |
| Slide                       | Features              | Dust-proof type is available  | Low-profile Horizontal type   |   | Horizontal type   | 4-direction switch + push switch  |   | Round terminal type   | —  | Round terminal Horizontal type  | Water-proof   |   |    |
| Rotary                      | Operating direction   | Vertical  | —   |   | ●   | ●   | ●   | ●   | ●  | —   | ●   |   |    |
| Encoders                    |                       | Horizontal  | —   | ●   | ●   | ●   | —   |   |  | ●   | —   |   |    |
| Power                       | Dimensions (mm)       | W   | 6.2   | 3.5   | 3.9   | 4.5   | 6.45  | 7.35  | □10  | φ6.2  | □6.6  | 7.3   | φ9 |
|                             |                       | D   | 6.3   | 3.55  |   |   | 6.4   | 7.5   |  |   |   | 6.85  |    |
|                             |                       | H   | 2.5   | 1.25  | 1.5   | 3.3   | 4   | 5   | 7.1  | 4.3   | 5   | 7.1   | 13 |
| Operation force coverage    | 1N                    | ↕   | ↕   | ↕   | ●   | See the relevant pages for respective product descriptions                        |   |   | ↕  | ↕   | ↕   | ↕   |    |
|                             | 5N                    |   |   |   |   |   |   |   |  |   |   |   |    |
| Travel (mm)                 |                       | 0.25  | 0.2   |   | See the relevant pages for respective product descriptions                        |   |   | 0.25  |  |   |   |   |    |
| Ground terminal             |                       | ●   | —   | ●   | —   |   |   |   |  |   |   |   |    |
| Operating temperature range |                       | -20°C to +70°C<br>SKRV/QK   |   |   |   |   |   |   |  |   |   |   |    |
|                             |                       | -30°C to +85°C  |   |   |   |   |   |   |  |   |   |   |    |
| Automotive use              |                       | ○   | —   |   |   |   |   |   | ●  | —   | ●   | —   |    |
| Electrical performance      | Insulation resistance | 100MΩ min. 100V DC  |   |   |   |   |   |   |  |   |   |   |    |
|                             | Voltage proof         | 250V AC for 1min.<br>SKSC/RE/RV/RH : 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 the individual specification.   |   |   |   |   |   |   |  |   |   |   |    |
| Environmental performance   | Cold                  | -30±2°C for 96h   |   |   |   |   |   |   |  |   |   |   |    |
|                             | Dry heat              | 80±2°C for 96h  |   |   |   |   |   |   |  |   |   |   |    |
|                             | Damp heat             | 60±2°C, 90 to 95%RH for 96h   |   |   |   |   |   |   |  |   |   |   |    |
| Page                        |                       | 316   | 318   | 319   | 320   | 483   | 484   | 485   | 321  | 323   | 322   | 324   |    |

W : Width. The total dimension excluding terminal portion.  
 D : Depth. The total dimension excluding terminal portion.  
 H : Height. The minimum dimension if there is difference in product variety.

- TACT Switch™ Soldering Conditions .....334
- TACT Switch™ Cautions .....335
- Product Line of Knobs for TACT Switch™ .....336

### Notes

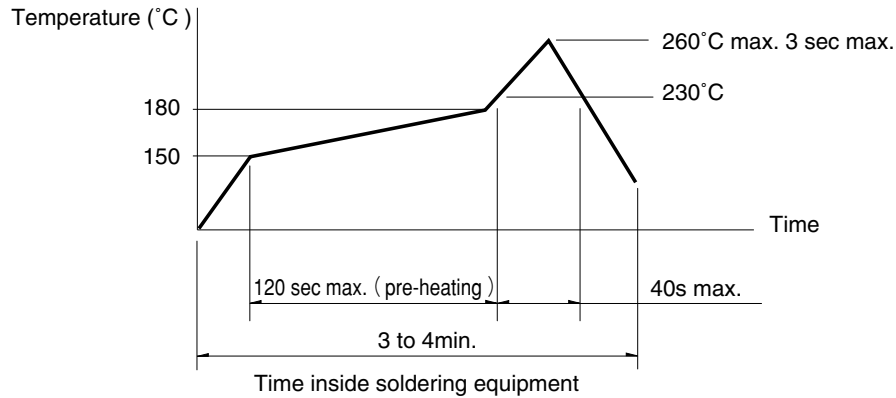
- The automotive operating temperature range to be individually discussed upon request.
- marks in "Available for automotive use" indicate that some of the series products can work at the operating temperature range from -40°C to +85°C, ●marks in "Available for automotive use" indicate that all of the series products can work at the operating temperature range from -40°C to +85°C.

## 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 0.2φ CA (K) or CC (T) at solder joints (copper foil surface). A heat resistive tape should be used to fix thermocouple.
3. Temperature profile



### Notes

1. The above temperature shall be measured of the top of switch. 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, 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.<br>100°C max. |
| Preheating time        | 60s max.   |
| Soldering temperature  | 260°C max.   |
| Duration of immersion  | 5s max.  |
| Number of soldering    | 2times 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.)

### Manual Soldering (Except SKRT Series)

| Items                      | Condition |
|----------------------------|-----------|
| Soldering temperature      | 350°Cmax. |
| Duration of soldering      | 3s max.   |
| Capacity of soldering iron | 60W max.  |

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