## 1.6mm width contributes to thinner devices





### Typical Specifications

| Items                      | Specifications  |
|----------------------------|-----------------|
| Rating (max.)              | 50mA 12V DC     |
| Rating (min.)              | 10 µA 1V DC     |
| Initial contact resistance | 500mΩ max.      |
| Travel (mm)                | 0.11            |
| Protective structure **    | IP67 equivalent |

## ■ Product Line

| Product No. Operating force Operating direction |                              | Operating direction | Operating life | Minimum order unit (pcs.) |        |  |
|---|------------------------------|---------------------|----------------|---------------------------|--------|--|
| T TOUGGE NO.                                    | duct No. Operating force Opi |                     | (5mA 5V DC)    | Japan                     | Export |  |
| SKTAACE010                                      | 1.ON                         | Top push            | 300,000 cycles | 20,000                    | 20,000 |  |
| SKTAAAE010                                      | 1.6N                         | τορ ρασιτ           |                |                           |        |  |

#### ■ Packing Specifications

#### Taping

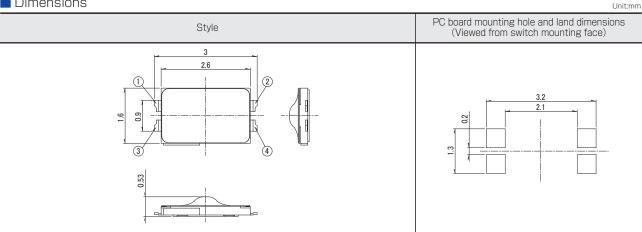
| Numbe  | Tape width                             | Export package |      |                   |
|--------|--|----------------|------|-------------------|
| 1 reel | 1 case / Japan 1 case / export packing |                | (mm) | measurements (mm) |
| 20,000 | 200,000                                | 200,000        | 12   | 395×395×205       |

# Reel size

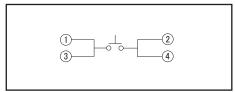
## Note

For reels of 330mm diameter, please inquire.

## ■ Dimensions



#### ■ Circuit Diagram



\*\* Assumes the switch is left alone without being operated. Under the specified conditions, dust and water ingress with a significant impact on the switch's on-off function is prevented.

IP67 dust and water resistance is guaranteed for the switch alone and performance may not be guaranteed depending on the mounting conditions and usage.

|   | Type                              | Sharp Feeling Type  |                                      |                   |                   |  |            |                   |                   |                                   |
|---|-----------------------------------|---|--------------------------------------|-------------------|-------------------|--|------------|-------------------|-------------------|-----------------------------------|
|   | туре                              | Surface Mount   |                                      |                   |                   |  |            |                   |                   |                                   |
|   | Series                            | SKSD  | SKRN                                 | SKTA              | SKSV              | SKSW   | SKSF       | SKSM              | SKTK              | SKSG                              |
|   | Photo                             |   |                                      | NEW               | <b>(</b>          | •  | •          | •                 | NEW               |                                   |
|   | Features                          | Double  | action                               |                   |                   | Compact size Low-profile                         |            | 1                 | Long life         | High operation force Compact size |
|   | Water-proof                       | _   | _                                    | •                 | •                 | •  | _          | •                 | •                 | _                                 |
|   | Dust-proof                        | _   | _                                    | •                 | •                 | •  | _          | •                 | •                 | _                                 |
|   | IP standard                       | _   | _                                    | 67<br>equivalency | 67<br>equivalency | 67 equivalency<br>68 equivalent in<br>some cases | _          | 67<br>equivalency | 67<br>equivalency | _                                 |
| Operatir                                    | Top push                          | •   | •                                    | •                 | •                 | •  | •          | •                 | •                 | •                                 |
| directio                                    | Side push                         | _   | _                                    | _                 | _                 | _  | _          | _                 | _                 | _                                 |
|   | W                                 | 4.1   |                                      | 2.6               | 2.8               | 3  | 2.8        | 3.4               | 5.9               | 3                                 |
| Dimensio<br>(mm)                            | ons D                             | 3.9   | - □6                                 | 1.6               | 1.9               | 2  | 2.4        | 2.9               | 4                 | 2.7                               |
| (11111)                                     | Н                                 | 0.6   | 0.9                                  | 0.53              | 0.55              | 0.6  | 0.65       | 0.7               | 0.78              | 1.4                               |
| Operation force coverage                    | 2N to 3N                          | for respect   | evant pages<br>ive product<br>ptions | <b>‡</b>          | 1                 | Ţ  | <b>\$</b>  | <b>\$</b>         | \$                | Î                                 |
|   | Travel (mm)                       |   | ant pages for<br>uct descriptions    | 0.11              | 0.12              | 0.13   | (          | 0.1               | 0.25              | 0.12                              |
| G   | round terminal                    | •   | •                                    | _                 | _                 | _  | _          | _                 | _                 | 0                                 |
| Operating temperature range                 |                                   | -40℃ t  | o +90℃                               |                   |                   | _  | 30℃ to +85 | 5°C               |                   |                                   |
| Aı  | utomotive use                     | _   | _                                    | _                 | _                 | _  | _          | _                 | _                 | •                                 |
|   | Life Cycle                        | <b>*</b> 2  | <b>*</b> 2                           | <b>X</b> 2        | <b>*</b> 2        | <b>*</b> 2                                       | <b>X</b> 2 | <b>*</b> 2        | <b>X</b> 2        | <b>X</b> 2                        |
|   | Rating (max.)<br>(Resistive load) |   |                                      |                   | 5                 | 0mA 12V D  | С          |                   |                   |                                   |
| Electrical                                  | Rating (min.)<br>(Resistive load) |   |                                      |                   |                   | 10μΑ 1V DC                                       | ;          |                   |                   |                                   |
| performance                                 | Insulation resistance             | 100MΩ min. 100V DC 1min. 50MΩ min. 100MΩ min. 100V DC 1min. 100V DC 1min. 100V DC 1min. |                                      |                   |                   |  |            |                   |                   |                                   |
|   | Voltage proof                     | 100V AC<br>1min.  | 250V AC<br>1min.                     |                   |                   | 1  | OOV AC 1mi | in.               |                   |                                   |
| Durability                                  | Vibration                         | in the 3 direction of X, Y and Z for 2 hours respectively                               |                                      |                   | ies,              |  |            |                   |                   |                                   |
| Durability                                  | Lifetime                          |   |                                      |                   | cations.          | ş.   |            |                   |                   |                                   |
|   | Cold                              | -40℃ 96h  |                                      |                   |                   |  |            |                   |                   |                                   |
| Environmental performance Dry heat 90°C 96h |                                   |   |                                      |                   |                   |  |            |                   |                   |                                   |
|   | Damp heat                         |   |                                      |                   | 60°C,             | 90 to 95%R                                       | H 96h      |                   |                   |                                   |
|   | Page                              | 219   | 220                                  | 221               | 222               | 223  | 225        | 226               | 227               | 228                               |

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

#### Notes

 $<sup>\</sup>mathsf{D}:\mathsf{Depth}.$  The most outer dimension excluding terminal portion.  $\mathsf{H}:\mathsf{Height}.$  The minimum dimension if there are variances.

<sup>1.</sup> The automotive operating temperature range to be individually discussed upon request.

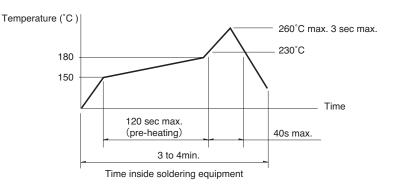
<sup>2. •</sup> Indicates applicability to all products in the series, while  $\bigcirc$  indicates applicability to some products in the series.

# TACT Switch™ Soldering Conditions

#### Condition for Reflow

Available for Surface Mount Type.

- 1. Temperature measurement: Thermocouple  $\phi$  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.
- 2. Temperature profile



## Notes

- 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.
- 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.

| 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°C max. |
| Preheating time        | 60s max.  |
| Soldering temperature  | 260℃ max.   |
| Duration of immersion  | 5s max.   |
| Number of soldering    | 2times max.   |

#### SKHH, SKPD 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. 110°C max. |
| Preheating time        | 60s max.  |
| Soldering temperature  | 260°C max.  |
| Duration of immersion  | 5s max.   |
| Number of soldering    | 2times max.   |

## 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°C max. |  |
| Preheating time        | 45s max.  |  |
| Soldering temperature  | 255℃ max.   |  |
| Duration of immersion  | 5s max.   |  |
| Number of soldering    | 2times max.   |  |

## ■ Manual Soldering

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

#### SKHH, SKHW, SKRG, SKPD Series

| Items                      | Condition  |
|----------------------------|------------|
| Soldering temperature      | 360°C max. |
| Duration of soldering      | 3s max.    |
| Capacity of soldering iron | 60W max.   |

## SKTD, SKTG, SKQJ, SKQK, SKEG Series

| Items                      | Condition  |
|----------------------------|------------|
| Soldering temperature      | 350°C max. |
| Duration of soldering      | 3s max.    |
| Capacity of soldering iron | 20W max.   |

## Notes

- 1. Prevent flux penetration from the top side of the TACT Switch™.
- 2. Switch terminals and a PC board should not be coated with flux prior to soldering.
- 3. The second soldering should be done after the switch is stable with normal temperature.
- 4. Use the flux with a specific gravity of min 0.81. (EC-19S-8 by TAMURA Corporation, or equivalents.)



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