# 8.5mm Square Middle-stroke (Surface Mount Type)

# Switch with 0.9mm stroke realizing a refined operating feel







# Typical Specifications

| Items                      | Specifications |
|----------------------------|----------------|
| Rating (max.)              | 50mA 16V DC    |
| Rating (min.)              | 10μA 1V DC     |
| Initial contact resistance | 100mΩ max.     |
| Travel (mm)                | 0.9            |

## ■ Product Line

| Product No.  | Product No. Operating force Ope |                     | Operating life | Stem color   | Minimum order unit (pcs.) |        |  |
|--------------|---------------------------------|---------------------|----------------|--------------|---------------------------|--------|--|
| T TOUGET NO. | Operating force                 | Operating direction | (5mA 5V DC)    | Otenii coloi | Japan                     | Export |  |
| SKSTAAE010   | 4N                              |                     | 500,000 cycles | Green        |                           |        |  |
| SKSTACE010   | 7N                              | Top push            | 500,000 cycles | Yellow       | 1,500                     | 1,500  |  |
| SKSTADE010   | 10N                             |                     | 200,000 cycles | Blue         |                           |        |  |

# Packing Specifications

#### Taping

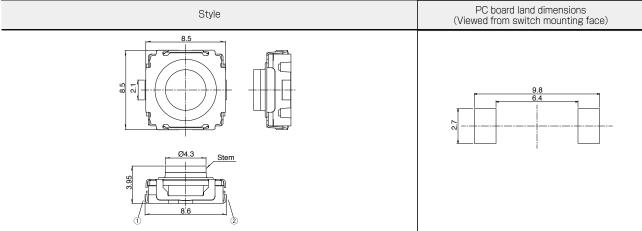
| Number of packages (pcs.) |                |                         | Tape width | Export package    |
|---------------------------|----------------|-------------------------|------------|-------------------|
| 1 reel                    | 1 case / Japan | 1 case / export packing | (mm)       | measurements (mm) |
| 1,500                     | 9,000          | 9,000                   | 24         | 395×395×205       |

# Unit:mm Reel size

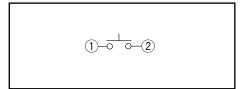
# Note

For reels of 330mm diameter, please inquire.

# Dimensions Style



# ■ Circuit Diagram



|                           | Type                              |  |   |           | Sharp Fe   | eling Type                  |                     |               |                  |
|---------------------------|-----------------------------------|--|---|-----------|------------|-----------------------------|---------------------|---------------|------------------|
|                           | Type                              |  |   |           | Surfac     | e Mount                     |                     |               |                  |
|                           | Series                            | SKST   | SKRA  | SKHM      | SKHU       | SKTD                        | SKSN                | SKTG          | SKSL             |
|                           | Photo                             |  |   |           |            |                             |                     |               | 04               |
|                           | Features                          | Middle   | e travel  | _         | _          | Low-profile                 | Mid-mount           | t Half-mount  |                  |
|                           | Water-proof                       | _  | 0   | _         | 0          | •                           | _                   | •             | _                |
|                           | Dust-proof                        | _  | 0   | _         | 0          | •                           | _                   | •             | _                |
|                           | IP standard                       | _  | 67 equivalent   | _         | _          | 67 equivalent               | _                   | 67 equivalent | _                |
| Operatir                  | Top push                          | •  | •   | •         | •          | _                           | _                   | _             | _                |
| directio                  |                                   | _  | _   | _         | _          | •                           | •                   | •             | •                |
|                           | W                                 |  |   | 6.2       | 6.2        | 3.9                         | 6.2                 | 5.2           | 4.5              |
| Dimensio<br>(mm)          | ons D                             | □8.5   | □6.2  | 6.5       | 6.3        | 2.9                         | 3                   | 3.5           | 2.6              |
| (111111)                  | Н                                 | 3.95   | 3.5/5.2   | 3.1       | 2.5/3.1    | 1.55                        | 3.5                 | 1.55          | 2.2              |
| Operation force coverage  | 2N to 3N                          | 4N to 10N  |   |           | 1          | <b>‡</b>                    | 1                   | <b>\$</b>     | 1                |
|                           | Travel (mm)                       | 0.9  | See the relevant pages for<br>respective product<br>description | 0         | .25        | 0.15                        | 0.2                 | 0.            | 15               |
| G                         | round terminal                    | _  | _   | •         | •          | •                           | •                   | •             | •                |
| Operatin                  | g temperature range               | -40°C 1  | to +90℃   | -40℃      | to +85℃    | -30℃ to +85℃                | -40°C to +85°C      |               | o +85℃           |
| А                         | utomotive use                     | •  | 0   | _         | 0          | _                           | _                   | _             | _                |
|                           | Life Cycle                        | <b>X</b> 2   | *3  | *3        | <b>*</b> 3 | *2                          | <b>2</b>            | <b>*</b> 2    | <b>*</b> 2       |
|                           | Rating (max.)<br>(Resistive load) | 50mA 16V<br>DC   |   |           |            | 50mA 12V DC                 | )                   |               | <u> </u>         |
| Electrical                | Rating (min.)<br>(Resistive load) |  | 10μA 1V DC  |           |            |                             |                     |               |                  |
| performance               | Insulation resistance             |  |   |           | 100MΩ min. | 100V DC 1min.               |                     |               |                  |
|                           | Voltage proof                     |  | 250V A  | C 1min.   |            | 100V AC 1min. 250V AC 1min. |                     | C 1min.       | 100V AC<br>1min. |
|                           | 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 2 hours respectively |   |           |            |                             |                     |               |                  |
| Durability                | Lifetime                          | Shall be in accordance with individual specifications.   |   |           |            |                             |                     |               |                  |
|                           | Cold                              | -40°C 1,000h   |   | -40°C 96h |            |                             |                     |               |                  |
| Environmental performance | Dry heat                          | 90°C   | 1,000h  | 90°0      | 2 96h      | 85℃ 96h                     | 90℃ 96h             | 85℃ 96h       | 90°C 96h         |
|                           | Damp heat                         |  | to 95%RH<br>00h   | 60°C, 90  |            | 60°C, 90 to                 | °C, 90 to 95%RH 96h |               |                  |
|                           | Page                              | 230  | 231   | 232       | 233        | 235                         | 236                 | 237           | 238              |

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

 $\ensuremath{\mathsf{H}}$  : Height. The minimum dimension if there are variances.

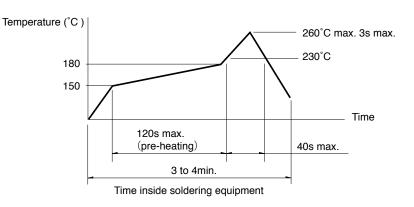
| TACT Switch™ Soldering Conditions · · · · · · · · · · · · · · · · · · ·  |
|--|
| TACT Switch <sup>TM</sup> Cautions · · · · · · · · · · · · · · · · · · · |

#### Notes

- 1. The automotive operating temperature range to be individually discussed upon request.
- 2. lacktriangle 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. Temperature profile



# Notes

- 1. Please confirm the specifications of our product for the detailed condition.
- 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.

| 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 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℃ max.   |
| Duration of immersion  | 5s max.   |
| Number of soldering    | 2times max.   |

# SKHL Top Push Type, SKQJ 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 Series

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

#### SKTD, SKTG, SKQJ 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.)

