3.9x2.9mm Side Push Type (Surface Mount Type)

Soldering of the frame realizes higher solder strength

### Typical Specifications

<table>
<thead>
<tr>
<th>Items</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating (max.)</td>
<td>50mA 12V DC</td>
</tr>
<tr>
<td>Rating (min.)</td>
<td>10 μA 1V DC</td>
</tr>
<tr>
<td>Initial contact resistance</td>
<td>500mΩ max.</td>
</tr>
<tr>
<td>Travel (mm)</td>
<td>0.15</td>
</tr>
<tr>
<td>Protective structure ※</td>
<td>IP67 equivalent</td>
</tr>
</tbody>
</table>

### Product Line

<table>
<thead>
<tr>
<th>Product No.</th>
<th>Operating force</th>
<th>Operating direction</th>
<th>Operating life (5mA 5V DC)</th>
<th>Minimum order unit (pcs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKTDLDE010</td>
<td>1.6N</td>
<td>Side push</td>
<td>200,000 cycles</td>
<td>4,500 4,500</td>
</tr>
</tbody>
</table>

### Packing Specifications

**Taping**

<table>
<thead>
<tr>
<th>Number of packages (pcs.)</th>
<th>Tape width (mm)</th>
<th>Export package measurements (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 reel</td>
<td>45,000</td>
<td>395x395x205</td>
</tr>
<tr>
<td>1 case / Japan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 case / export pack</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note**

For reels of 330mm diameter, please inquire.

### Dimensions

**PC board mounting hole and land dimensions** (Viewed from switch mounting face)

- **Style**
- **PC board mounting hole and land 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.

Refer to P.249 for soldering conditions.
## TACT Switch™

### List of Varieties

<table>
<thead>
<tr>
<th>Type</th>
<th>Sharp Feeling Type</th>
<th>Surface Mount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>SKST</td>
<td>SKRA</td>
</tr>
</tbody>
</table>

### Features
- **Middle travel**
- **Low-profile**
- **Mid-mount**
- **Half-mount**

### Water-proof
- **—**
- **○**
- **●**
- **—**

### Dust-proof
- **—**
- **○**
- **●**
- **—**

### IP standard
- **—**
- **67 equivalent**
- **67 equivalent**
- **—**

### Operating direction
- **Top push**
  - **●**
  - **●**
  - **●**
  - **●**
  - **—**
  - **—**
  - **—**
  - **—**
- **Side push**
  - **—**
  - **—**
  - **—**
  - **—**
  - **●**
  - **●**
  - **●**
  - **●**

### Dimensions (mm)

<table>
<thead>
<tr>
<th>Type</th>
<th>W</th>
<th>D</th>
<th>H</th>
<th>W</th>
<th>D</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wide</strong></td>
<td>8.5</td>
<td>6.2</td>
<td>3.95</td>
<td>6.2</td>
<td>6.3</td>
<td>3.1</td>
</tr>
<tr>
<td><strong>Rad</strong></td>
<td>6.5</td>
<td>6.3</td>
<td>3.5</td>
<td>6.2</td>
<td>7.3</td>
<td>2.5/3.1</td>
</tr>
<tr>
<td><strong>Height</strong></td>
<td>3.95</td>
<td>3.5/5.2</td>
<td>1.55</td>
<td>3.5</td>
<td>3.5</td>
<td>1.55</td>
</tr>
</tbody>
</table>

### Operation force coverage
- **4N to 10N**
- **1N max.**
- **1N to 2N**
- **2N to 3N**
- **3N to 4N**
- **4N to 5N**

### Travel (mm)
- **0.25**
- **0.15**
- **0.2**
- **0.15**

### Ground terminal
- **—**
- **●**
- **—**
- **—**
- **—**
- **—**
- **—**
- **—**

### Operating temperature range
- **−40°C to +90°C**
- **−40°C to +85°C**
- **−30°C to +85°C**
- **−40°C to +85°C**
- **−30°C to +85°C**

### Automotive use
- **●**
- **○**
- **—**
- **—**

### Life Cycle
- **Electrical performance**
  - **Rating (max.) (Resistive load)**
    - **50mA 16V DC**
    - **50mA 12V DC**
  - **Rating (min.) (Resistive load)**
    - **10μA 1V DC**
  - **Insulation resistance**
    - **100MΩ min. 100V DC 1min.**
  - **Voltage proof**
    - **250V AC 1min.**
    - **100V AC 1min.**
    - **250V AC 1min.**
    - **100V AC 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 2 hours respectively.**
    - **Lifetime**
      - **Shall be in accordance with individual specifications.**
  - **Environmental performance**
    - **Cold**
      - **−40°C 1,000h**
      - **−40°C 96h**
    - **Dry heat**
      - **90°C 1,000h**
      - **90°C 96h**
      - **85°C 96h**
      - **90°C 96h**
      - **85°C 96h**
      - **90°C 96h**
    - **Damp heat**
      - **60°C, 90 to 95% RH 1,000h**
      - **60°C, 90 to 95% RH 96h**

### Notes
1. The automotive operating temperature range to be individually discussed upon request.
2. ● Indicates applicability to all products in the series, while ○ indicates applicability to some products in the series.
TACT Switch™ / Soldering Conditions

### Condition for Reflow
Available for Surface Mount Type.
Temperature profile

- **Temperature (°C):**
  - 180
  - 150
  - 230°C
  - 260°C max. 3s max.

- **Time inside soldering equipment:**
  - 3 to 4min.
  - 120s max. (pre-heating)
  - 40s max.

### 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.

<table>
<thead>
<tr>
<th>Items</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flux build-up</td>
<td>Mounting surface should not be exposed to flux</td>
</tr>
<tr>
<td>Preheating temperature</td>
<td>Ambient temperature of the soldered surface of PC board, 110°C max.</td>
</tr>
<tr>
<td>Preheating time</td>
<td>60s max.</td>
</tr>
<tr>
<td>Soldering temperature</td>
<td>260°C max.</td>
</tr>
<tr>
<td>Duration of immersion</td>
<td>5s max.</td>
</tr>
<tr>
<td>Number of soldering</td>
<td>2times max.</td>
</tr>
</tbody>
</table>

**SKHH Series**

<table>
<thead>
<tr>
<th>Items</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flux build-up</td>
<td>Mounting surface should not be exposed to flux</td>
</tr>
<tr>
<td>Preheating temperature</td>
<td>Ambient temperature of the soldered surface of PC board, 100°C max.</td>
</tr>
<tr>
<td>Preheating time</td>
<td>60s max.</td>
</tr>
<tr>
<td>Soldering temperature</td>
<td>260°C max.</td>
</tr>
<tr>
<td>Duration of immersion</td>
<td>5s max.</td>
</tr>
<tr>
<td>Number of soldering</td>
<td>2times max.</td>
</tr>
</tbody>
</table>

**SKHL Top Push Type, SKQJ Series**

<table>
<thead>
<tr>
<th>Items</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flux build-up</td>
<td>Mounting surface should not be exposed to flux</td>
</tr>
<tr>
<td>Preheating temperature</td>
<td>Ambient temperature of the soldered surface of PC board, 100°C max.</td>
</tr>
<tr>
<td>Preheating time</td>
<td>45s max.</td>
</tr>
<tr>
<td>Soldering temperature</td>
<td>255°C max.</td>
</tr>
<tr>
<td>Duration of immersion</td>
<td>5s max.</td>
</tr>
<tr>
<td>Number of soldering</td>
<td>2times max.</td>
</tr>
</tbody>
</table>

### Manual Soldering

**SKHH, SKHW Series**

<table>
<thead>
<tr>
<th>Items</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soldering temperature</td>
<td>360°C max.</td>
</tr>
<tr>
<td>Duration of soldering</td>
<td>3s max.</td>
</tr>
<tr>
<td>Capacity of soldering iron</td>
<td>60W max.</td>
</tr>
</tbody>
</table>

**SKTD, SKTG, SKQJ Series**

<table>
<thead>
<tr>
<th>Items</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soldering temperature</td>
<td>350°C max.</td>
</tr>
<tr>
<td>Duration of soldering</td>
<td>3s max.</td>
</tr>
<tr>
<td>Capacity of soldering iron</td>
<td>20W max.</td>
</tr>
</tbody>
</table>

### 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.)