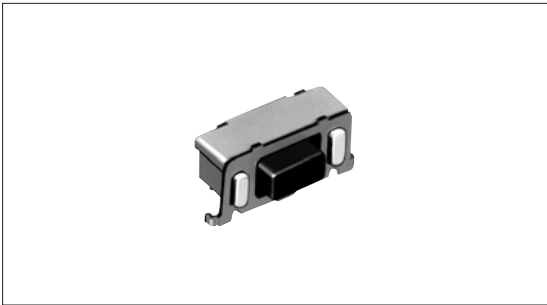


# TACT Switch™ 6.9×3.5mm Compact Side-push™ (Surface mount type) SKQT Series



Horizontal switch with a wide variety of operational force.

- Detector
- Push
- Slide
- Rotary
- Encoders



- Power
- Dual-in-line Package Type
- Multi Control Devices

- TACT Switch™
- Custom-Products

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

## Features

- Horizontal type enabling the switch to operate horizontally facing the PC board.
- Reflow solderable.
- Supplied in 16mm width embossed taping.

## Applications

- For various operation in portable devices
- For various operation in devices requiring high density mounting - mobile phones, communication devices and compact electronic devices

## Product Line

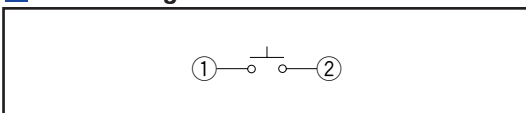
| Product No. | Operating force | Operating direction | Travel (mm) | Rating (max.)  | Rating (min.) | Operating life (5mA 5V DC) | Initial contact resistance |
|-------------|-----------------|---------------------|-------------|----------------|---------------|----------------------------|----------------------------|
| SKQTLCE010  | 0.98N           | Horizontal          | 0.25        | 50mA<br>12V DC | 10μA<br>1V DC | 50,000cycles               | 500mΩ max.                 |
| SKQTLAE010  | 1.57N           |                     |             |                |               |                            |                            |
| SKQTLBE010  | 2.55N           |                     |             |                |               | 30,000cycles               |                            |

## Dimensions

Unit:mm

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

## Circuit Diagram



Refer to P.373 for product specifications.  
Refer to P.374 for soldering conditions.  
Refer to P.376 for taping packag specifications.

## Product Specifications

| Items                     |                       | Series  | Sharp feeling type | Soft feeling type                  |                        |
|---------------------------|-----------------------|---|--------------------|------------------------------------|------------------------|
|                           |                       | Operating temperature range   |                    | -20°C to +70°C<br>SKHJ/HL/QJ/RR/QK | -20°C to +70°C<br>SKEG |
| Electrical performance    | Insulation resistance | 100MΩ min. 100V DC<br>SKEY/PD : 50MΩ min. 100V DC   |                    |                                    |                        |
|                           | Voltage proof         | 250V AC for 1minute<br>SKRE/SC/RB/RM/RW/RR/EY/PD : 100V AC for 1minute  |                    |                                    |                        |
| 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°C for 96h   |                    |                                    |                        |
|                           | Dry heat              | 80±2°C for 96h  |                    |                                    |                        |
|                           | Damp heat             | 60±2°C, 90 to 95%RH for 96h   |                    |                                    |                        |

Detector

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Slide

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Package TypeMulti Control  
Devices

TACT Switch™

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### Note

The automotive operating temperature range to be individually discussed upon request.

### Specifications of LED (SKHJ)

| Color of illumination       | Power dissipation<br>P (mW) | Forward pulse peak current<br>IFP (mA) | Forward current<br>IFDC (mA) | Reverse voltage<br>VR (V) | Forward voltage<br>VF (V)<br>IF=10mA | Reverse current<br>IR (μA)<br>VR=4V | Peak emission wave length<br>λ peak (nm)<br>IF=10mA | Spectral line half width<br>Δλ (nm)<br>IF=10mA | Luminous intensity<br>IV (mcd)<br>IF=10mA |
|-----------------------------|-----------------------------|--|------------------------------|---------------------------|--------------------------------------|-------------------------------------|---|--|---|
| Red                         | 40                          | 80                                     | 15                           | 4                         | 2.7 max.<br>2.05TYP                  | 5 max.                              | 700 TYP   | 100 TYP  | 0.4min.<br>1.0 TYP                        |
| Pure green                  |                             |  |                              |                           | 10 max.                              | 555 TYP                             | 20 TYP  | 0.8min.<br>2.0 TYP                             |   |
| Amber                       |                             |  |                              |                           |                                      | 590 TYP                             | 30 TYP  | 0.4min.<br>1.0 TYP                             |   |
| Orange<br>(High brightness) |                             |  |                              | 630 TYP                   | 40 TYP                               | 1.5min.<br>4.0 TYP                  |   |  |   |
| Green<br>(High brightness)  |                             |  |                              | 4                         | 2.7 max.<br>2.05TYP                  | 565 TYP                             | 30 TYP  | 2.0min.<br>5.0 TYP                             |   |

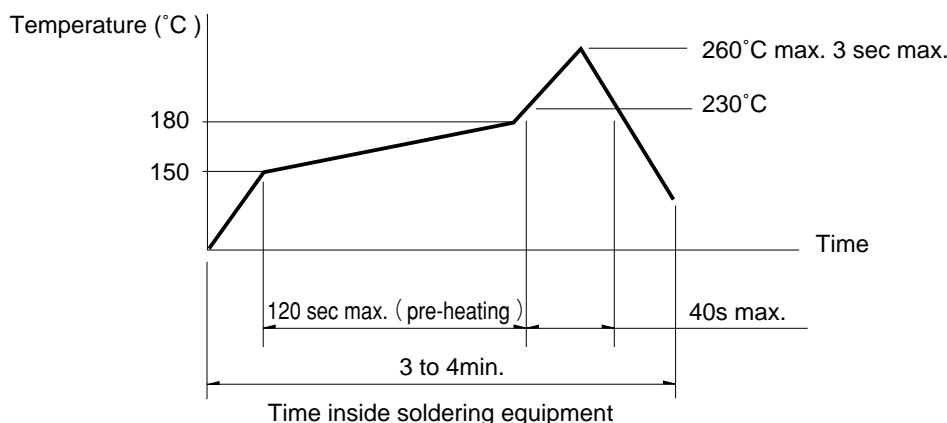
Sharp  
FeelingSoft  
FeelingSnap-in  
TypeSurface  
Mount TypeRadial  
Type

## 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 φ 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°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 TACT Switch™ washing conditions.
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 returns to 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°C max. |
| Duration of soldering      | 3s max.    |
| Capacity of soldering iron | 60W max.   |

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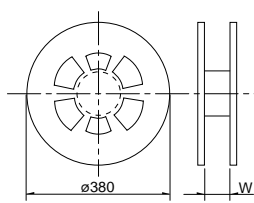
Sharp Feeling  
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# Specification of Embossed Taping Package

## Taping Packaging for Auto-insertion

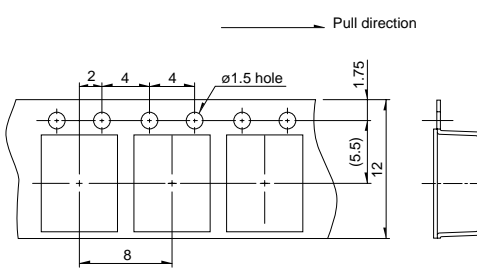
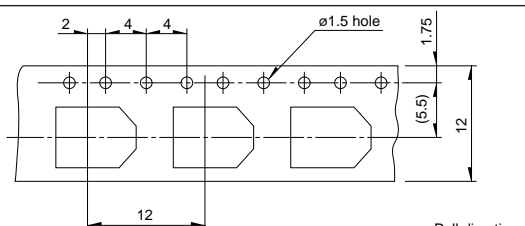
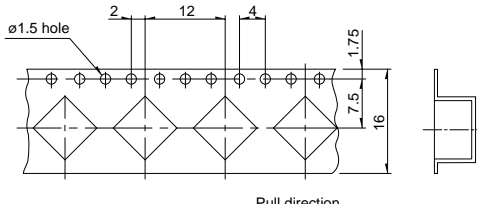
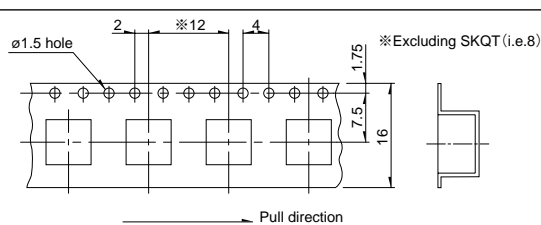
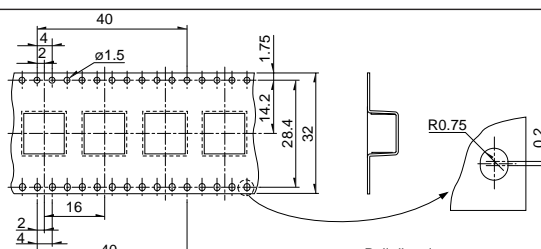
Reel Size

Unit:mm

| Plastic Reel<br> | Applicable series  | W    |
|---|--|------|
|   | SKHM, SKHU, SKQG, SKQL, SKQM, SKOR, SKOY, SKRAAK, SKRAAL, SKRB, SKRE, SKRK, SKRM, SKRN, SKRP, SKRT, SKRW, SKPM, SKSC, SKSD | 13.5 |
|   | SKQT, SKRAAM, SKRAAQ, SKRR, SKPG, SKPN   | 17.5 |
|   | SKQUBA, SKQUBB   | 33.5 |

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Unit:mm

| Applicable series                      | Qty/reel (pcs.)<br>(Minimum packing unit)           | Tape dimensions  |
|--|---|--|
| SKQM, SKPM                             | 2,000   |   |
| SKHM, SKHU, SKOY, SKRT, SKRAAK, SKRAAL | 3,000   |  |
| SKQG                                   | 5,000 (Without stem type)<br>4,000 (With stem type) |  |
| SKRP                                   | 4,000   |  |
| SKRKAE, SKRKAH                         | 4,500   |  |
| SKQR, SKRB<br>SKRM, SKRW               | 10,000  |  |
| SKRE, SKRN,<br>SKRKAG, SKSC, SKSD      | 5,000   |  |
| SKQL                                   | 3,000   |  |
| SKRH                                   | 1,300   |  |
| SKRV                                   | 1,500   |  |
| SKPG                                   | 1,200   |  |
| SKRAAM, SKRAAQ                         | 1,400   |  |
| SKQT                                   | 3,000   |  |
| SKRR                                   | 7,000   |  |
| SKPN                                   | 1,100   |  |
| SKQUBA                                 | 750   |  |
| SKQUBB                                 | 600   |  |

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**Note**

For ø 330mm diameter reel requirements, please contact us.