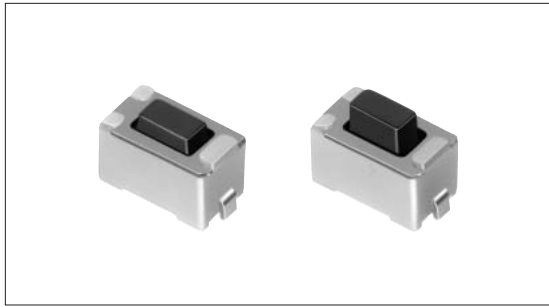


# TACT Switch™ 6×3.5mm Compact (SMD) Type

SKQM Series



Compact size contributing to high density mounting.



## Features

- The same external dimensions as conventional SKHL series products.
- Reflow solderable.
- Packaged with a 12mm wide embossed taping.

## Applications

- For operating various electronic devices such as audio devices, TVs, video recorders, communication devices, measuring instrument, automotive sets, etc.

## Products Line

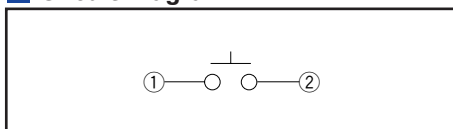
Products No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Rating (min.)	Operating life (5mA 5V DC)	Initial contact resistance	Stem color	Stem height	
SKQMBAE010	0.98N	Vertical	0.25	50mA 12V DC	10μA 1V DC	50,000 cycles	500mΩ max.	Black	h=4.3mm	
SKQMASE010	1.57N							Red		
SKQMAQE010	2.55N							Black	30,000 cycles	h=5mm
SKQMATE010	0.98N								50,000 cycles	
SKQMBBE010	1.57N								30,000 cycles	
SKQMARE010	2.55N								Red	

## Dimensions

Unit:mm

Style	PC board land dimensions (Viewed from switch mounting face)			
	<table border="1"> <tr> <td>h</td> </tr> <tr> <td>4.3</td> </tr> <tr> <td>5</td> </tr> </table>	h	4.3	5
h				
4.3				
5				

## Circuit Diagram



For other specifications, see P.369  
For soldering conditions, see P.370  
For specifications for the taping package, see P.372

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

## Products Specifications

Items		Series	Sharp feeling type	Soft feeling type
		Operating temperature range		-20°C to +70°C SKHJ/HL/QJ/RR/RV/QC/QK
Electrical performance	Insulation resistance	100MΩ min. 100V DC SKEY/PD : 50MΩ min. 100V DC		
	Voltage proof	250V AC for 1 min. SKRE/SKSC/SKRB/RV/RH/RM/RW/RR/EY/PD : 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 2 hours 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

Push

Slide

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Power

Dual-in-line  
Package TypeMulti Control  
Devices

TACT Switch™

Custom-  
Products

### Note

We can raise the working temperature range for in-vehicle applications upon request. Contact us if you have any requirements of this kind.

### Specifications of LED (SKHJ)

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

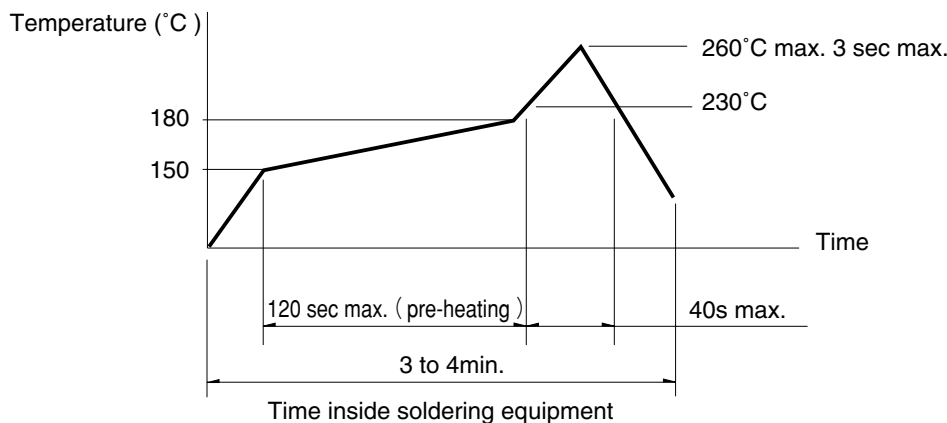
Sharp  
FeelingSoft  
FeelingSnap-in  
TypeSurface  
Mount TypeRadial  
Type

## Soldering Conditions

### Condition for Reflow

Available for Surface Mount Type. (Except SKRM, SKRR Series)

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 soldering portion (copper foil surface). A heat resisting tape should be used for fixed measurement.
3. Temperature profile



### Note

1. The condition mentioned above is the temperature 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 PC board's material, size, thickness, etc. The above-stated conditions shall also apply to switch surface temperatures.
2. Soldering conditions differ depending on reflow soldering machines. You are requested to verify the soldering conditions thoroughly beforehand.

### Conditions for Auto-dip

Available for Snap-in Type and Radial Type  
(Except SKHJ, SKHL, SKQC, SKQJ, SKQK, SKEG series)

Items	Condition
Flux built-up	Mounting surface should not be coated with flux
Preheating temperature	Ambient temperature of the soldered surface of PC board. 100°C max.
Preheating time	60s max.
Soldering temperature	260°C max.
Continuous dipping time	5s max.
Number of soldering	2times max.

### Manual Soldering (Except SKRT series)

Items	Condition
Soldering temperature	350°C max.
Continuous soldering time	3s max.
capacity of soldering iron	60W 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 at least 0.81.  
(EC-19S-8 by TAMURA Corporation, or their equivalents.)

Detector  
Push  
Slide  
Rotary  
Encoders  
Power  
Dual-in-line Package Type  
Multi Control Devices  
TACT Switch™  
Custom-Products

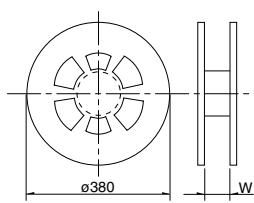
Sharp Feeling  
Soft Feeling  
Snap-in Type  
Surface Mount Type  
Radial Type

# Specification of Embossed Taping Package

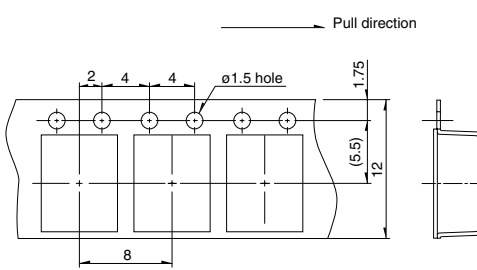
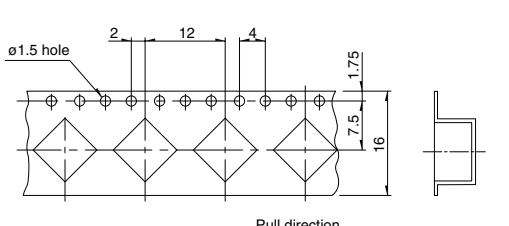
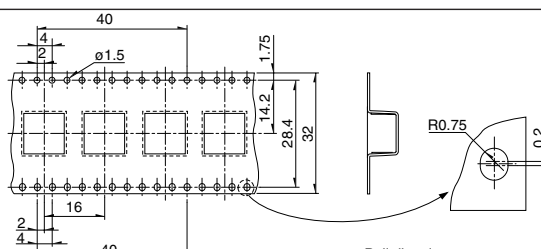
## Taping Packaging for Auto-insertion

Reel Size

Unit:mm

Plastic Reel 	Applicable series	W
	SKHM, SKHU, SKQG, SKQL, SKQM, SKQR, SKQY, SKRAAK, SKRAAL, SKRB, SKRE, SKRK, SKRM, SKRN, SKRP, SKRT, SKRW, SKPM, SKSC	13.5
	SKQT, SKRAAM, SKRAAQ, SKRH, SKRR, SKRV, SKPG, SKPN	17.5
	SKQUBA, SKQUBB	33.5

Unit:mm

Applicable series	Qty/reel (pcs.) (Minimum packing unit)	Tape dimensions
SKQM, SKPM	2,000	
SKHM, SKHU, SKQY, SKRT, SKRAAK, SKRAAL	3,000	
SKQG	5,000 (Without stem type) 4,000 (With stem type)	
SKRP	4,000	
SKRKAE, SKRKAH	4,500	
SKQR, SKRB SKRM, SKRW	10,000	
SKRE, SKRN, SKRKAG, SKSC	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	

**Note**

Consult with us for a  $\phi$  330 mm diameter reel.