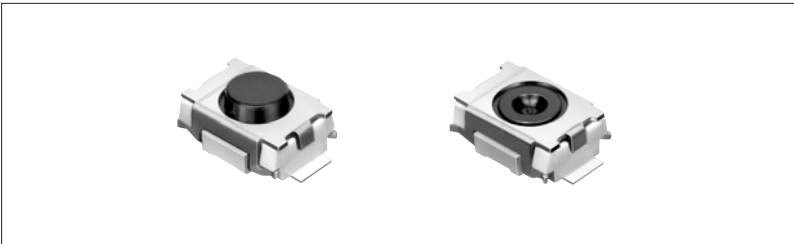


# 3.9×2.9mm Compact TACT Switch (SMD)

SKRK Series

1.5mm or 2.0mm stem height contribute to smaller and thinner sets.

Power
Push
Slide
Rotary
Encoders
Jog Shuttle
Telephone-hook
Detector
Vibration Sensors
Dual-in-line Package Type
Multi Control Devices
TACT



### Features

- 1.5mm stem height type has 40% smaller height and 50% smaller mounting space than conventional SKQY series.
- Improve mounting density of components on PC board.
- Reflow solderable.
- Packaged with a 12mm wide embossed taping.

### Applications

- Portable audio
- Cellular phones and Personal digital assistants
- Keyless entry system
- Operation of various digital devices

### Products Line

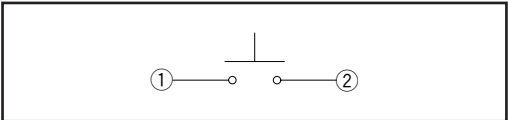
Products No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Operating life (5mA 5V DC)	Initial contact resistance	Stem height	Drawing No.
SKRKAEE010	1.57N	Vertical	0.13	50mA 12V DC	200,000cycles	100mΩ max.	h=2mm	1
SKRKAHE010	0.98N					500mΩ max.		
SKRKAGE010	1.57N					100mΩ max.	h=1.5mm	2

### Dimensions

Unit : mm

No.	Style	PC board land dimensions (Viewed from switch mounting face)
1		
2		

### Circuit Diagram



For detailed specifications, see P.413  
For soldering conditions, see P.414  
For specifications for the taping package, see P.416

## Products Specifications

Series		Sharp feeling type	Soft feeling type
Items			
Operating temperature range		-20°C to +70°C	
		-30°C to +85°C SKRM / RW	-30°C to +80°C SKPG
		-30°C to +90°C SKRA / RG / RP	-40°C to +90°C SKPF / PL / PM/ PN
Rating (max.)		50mA 12V DC SKRP : 50mA 16V DC	5mA 12V DC SKPL/PM/PN : 50mA 16V DC
Rating (min.)		10 $\mu$ A 1V DC	
Electrical performance	Insulation resistance	100M $\Omega$ SKEY/PD : 50M $\Omega$	
	Voltage proof	250V AC for 1 min. SKRB/RH/RM/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 $\pm$ 2°C for 96h	
	Dry heat	80 $\pm$ 2°C for 96h	
	Damp heat	60 $\pm$ 2°C, 90 to 95%RH for 96h	

Power

Push

Slide

Rotary

Encoders

Jog Shuttle

Telephone hook

Detector

Vibration Sensors

Dual-in-line Package Type

Multi Control Devices

TACT

### 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 ( $\mu$ A) VR=4V	Peak emission wave length $\lambda$ peak (nm) IF=10mA	Spectral line half width $\Delta \lambda$ (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					2.7 max. 2.0 TYP	10 max.	555 TYP	20 TYP	0.8min. 2.0 TYP
Amber							590 TYP	30 TYP	0.4min. 1.0 TYP
Orange (High brightness)				3			630 TYP	40 TYP	1.5min. 4.0 TYP
Green (High brightness)				4	2.7 max. 2.05TYP		565 TYP	30 TYP	2.0min. 5.0 TYP

Sharp Feeling

Soft Feeling

Snap-in Type

Surface Mount Type

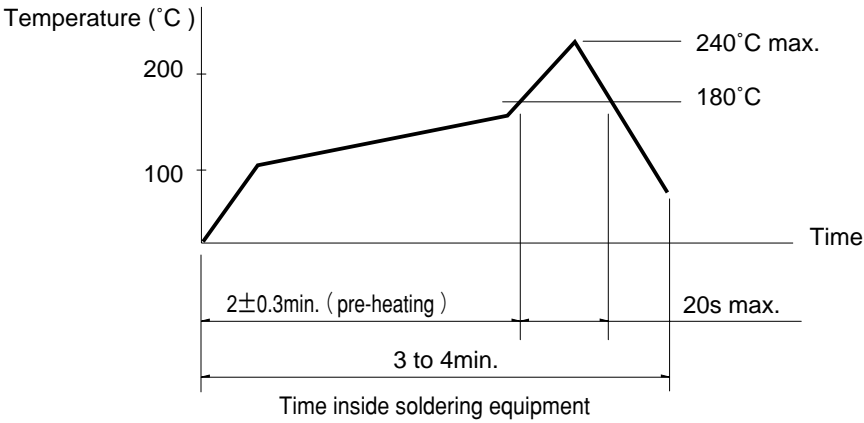
Radial Type

Soldering Conditions

Condition for Reflow

Available for Surface Mount Type. (Except SKHM 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



Notes

- 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. (Except a part of Variety SKRM, SKRR Series)
- 2. Soldering conditions differ depending on reflow soldering machines. You are requested to verify the soldering conditions thoroughly beforehand.
- 3. Ask us for the specifications of lead-free products.

Conditions for Auto-dip

Available for Snap-in Type and Radial Type

Items	Condition
Flux built-up	Mounting surface should not be coated with flax
Preheating temperature	Ambient temperature of the soldered surface of PC board. 100°C max.
Preheating time	45s max.
Soldering temperature	255°C max.
Continuous dipping time	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 at least 0.83. (MH-820V or CF220V by TAMURA Corporation, or their equivalents.)

Manual Soldering

Available for Manual Soldering Type

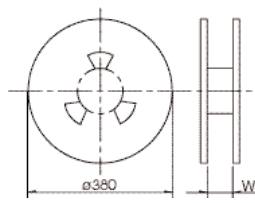
Items	Condition
Soldering temperature	350°C max.
Continuous soldering time	3s max.

## Specification of Embossed Taping Package

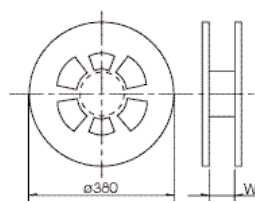
### Taping Packaging for Auto-insertion

Reel Size

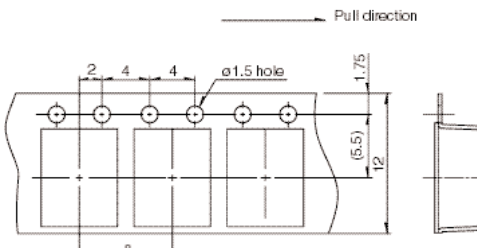
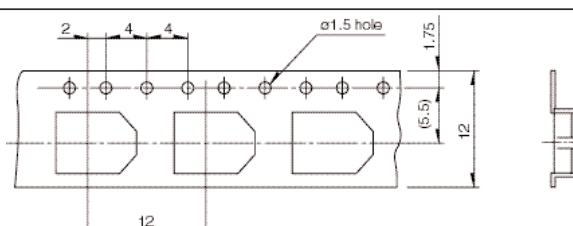
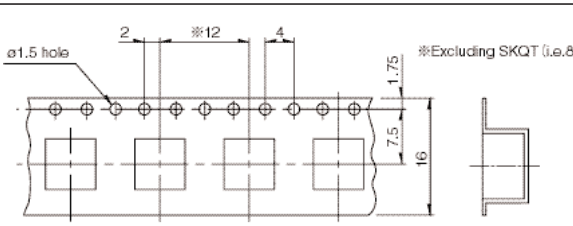
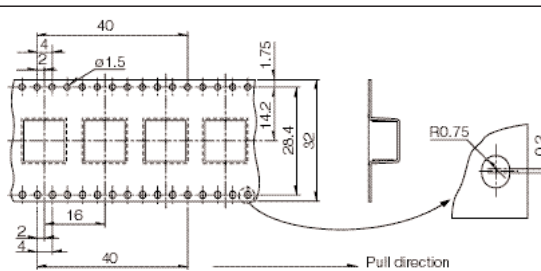
Unit : mm

Paper Reel	Applicable Series	W
	SKHM, SKHU, SKQG SKQL, SKQM, SKQR SKQY, SKRB, SKRE SKRAAA, SKRAAB	12.4
	SKQT, SKRH SKRAAC, SKRAAF SKPG, SKPN	16.4
	SKQUBA, SKQADB	32.4

Unit : mm

Plastic Reel	Applicable Series	W
	SKRK, SKRM SKRN, SKRP SKRT, SKPM SKRW	13.5
	SKRR	17.5

Unit : mm

Applicable series	Qty / reel (pcs.) (Minimum packing unit)	Tape dimensions
SKQM, SKPMAM SKPMAN, SKPMAP SKPMAQ	2,000	
SKPMAR, SKPMAS SKPMAT	2,500	
SKHM, SKHU SKQY, SKRT SKRAAA, SKRAAB	3,000	
SKQG	5,000 (Without stem type) 4,000 (With stem type)	
SKRP	4,000	
SKRKA, SKRKAH	4,500	
SKQR, SKRB SKRM, SKRW	10,000	
SKRE, SKRN, SKRKAG	5,000	
SKQL	3,000	
SKPG	1,200	
SKRH	1,300	
SKRAAC, SKRAAF	1,400	
SKQT	3,000	
SKRR	7,000	
SKPN	1,100	
SKQUBA	750	
SKQADB	600	

### Note

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