

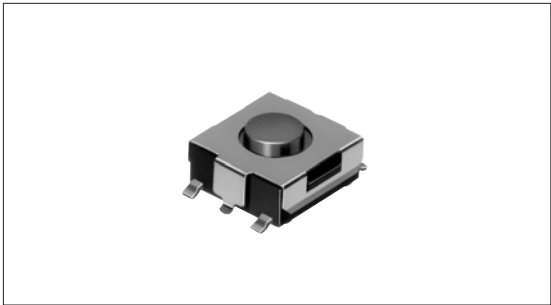
TACT Switch™

6.2×6.5mm (Surface mount type)

SKHM Series



Surface mounting type with 3.1mm total height.



Features

- Reflow solderable.
- Available with anti-ESD ground terminal.
- Supplied in 12mm width embossed taping

Applications

- For various operation in audio equipment, office equipment, communication devices, measuring instruments, TVs, video recorders, etc.

Product Line

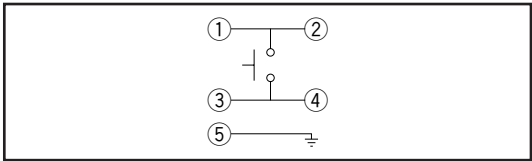
Product No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Rating (min.)	Operating life (5mA 5V DC)	Initial contact resistance	Stem color
SKHMQKE010	0.98N	Vertical	0.25	50mA 12V DC	10μ A 1V DC	500,000cycles	100mΩ max.	Black
SKHMQLE010	1.57N					300,000cycles		Green
SKHMQME010	2.35N					200,000cycles		Red

Dimensions

Unit:mm

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

Circuit Diagram



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

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 SKHJ/HL/QJ/RR/QK	-20°C to +70°C SKEG
			-30°C to +85°C	-40°C to +90°C
Electrical performance	Insulation resistance		100MΩ min. 100V DC SKEY/PD : 50MΩ min. 100V DC	
	Voltage proof		250V AC for 1minute 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	

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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 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					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

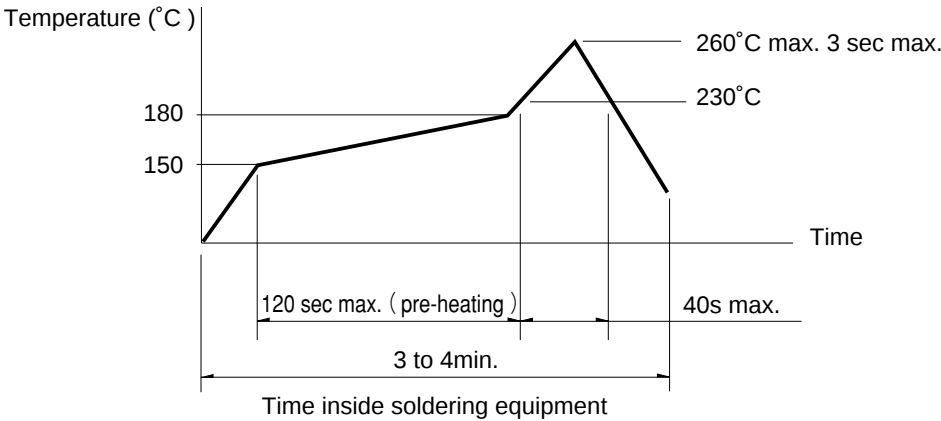
Sharp
FeelingSoft
FeelingSnap-in
TypeSurface
Mount TypeRadial
Type

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. 100°C max.
Preheating time	60s max.
Soldering temperature	260°C max.
Duration of immersion	5s max.
Number of soldering	2times max.

Manual Soldering (Except SKRT series)

Items	Condition
Soldering temperature	350°C max.
Duration of soldering	3s max.
Capacity of soldering iron	60W max.

Notes

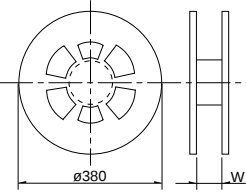
1. Consult with us for TACT Switch™ washing conditions.
2. Prevent flux penetration from the top side of the TACT Switch™.
3. Switch terminals and a PC board should not be coated with flux prior to soldering.
4. The second soldering should be done after the switch returns to normal temperature.
5. Use the flux with a specific gravity of min 0.81.
(EC-19S-8 by TAMURA Corporation, or equivalents.)

Specification of Embossed Taping Package

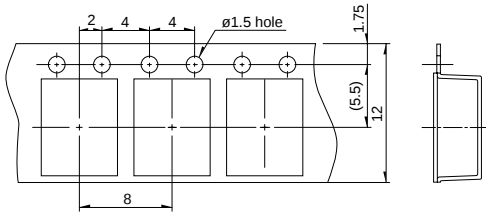
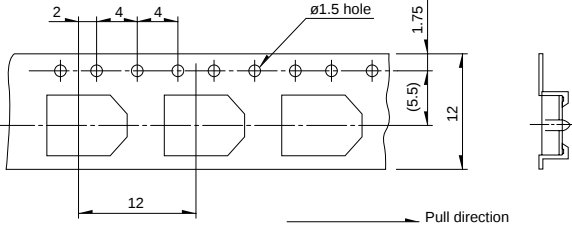
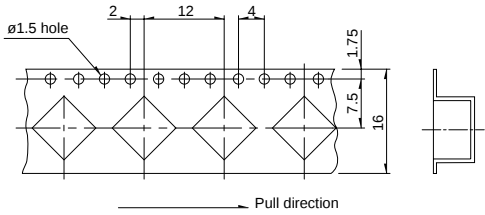
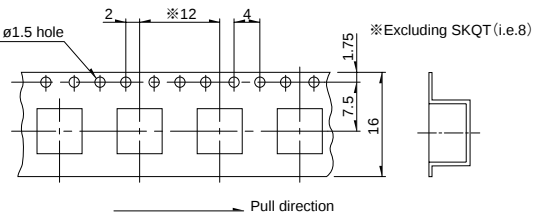
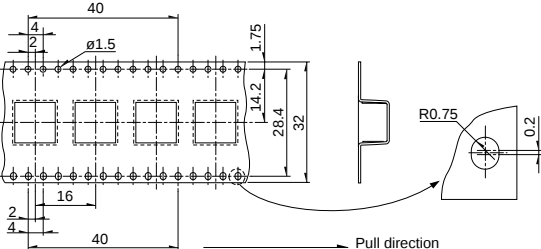
Taping Packaging for Auto-insertion

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, SKSD	13.5
	SKQT, SKRAAM, SKRAAQ, SKRR, SKPG, SKPN	17.5
	SKQUBA, SKQADB	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, 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	
SKQADB	600	

Note

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