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



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					50,000cycles	
SKQTLAE010	1.57N	Horizontal	0.25	50mA 12V DC	10μ A 1V DC	30,000cycles	500mΩ max.
SKQTLBE010	2.55N					30,000cycles	

Sharp Feeling

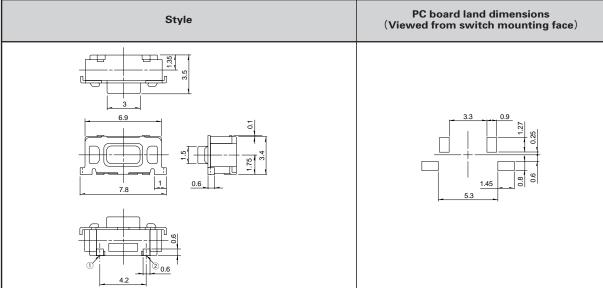
Soft Feeling

Snap-in Type

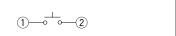
Surface Mount Type

Radial Type

■ Dimensions Unit:mm



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 $+70^{\circ}$ C SKHJ/HL/QJ/RR/QK	−20°C to +70°C SKEG	
		-30°C to +85°C	-40°C to +90°C	
Electrical	Insulation resistance	100M Ω min. 100V DC SKEY/PD : 50M Ω min. 100V DC		
performance	Voltage proof	250V AC for 1minute SKRE/SC/RB/RM/RW/RR/EY/PD: 100V AC for 1minute		
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		
Durability Lifetime		Shall be in accordance with individual specifications.		
	Cold	-30±2℃ for 96h		
Environmental performance	Dry heat	80±2℃ for 96h		
Damp heat		60±2℃, 90 to 95%RH for 96h		

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line Package Type

Multi Control Devices

TACT Switch™

Custom-Products

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	Reverse voltage VR(V)	Forward voltage VF(V) IF=10mA	Reverse current IR(μ A) VR=4V	Peak emission wave length λ peak(nm) IF=10mA	Spectral line half width Δ λ (nm) IF=10mA	Luminous intensity IV(mcd) IF=10mA	
Red					2.7 max.	5 max.	700 TYP	100 TYP	0.4min. 1.0 TYP	
Pure green			0 15	4	4	2.05TYP		555 TYP	20 TYP	0.8min. 2.0 TYP
Amber	40 80 15	0 80			2.7 max.	10 max.	590 TYP	30 TYP	0.4min. 1.0 TYP	
Orange (High brightness)		3	2.0 TYP	o lo iliax.	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	

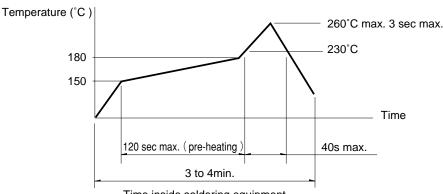
Sharp Feeling Soft Feeling Snap-in Type Surface Mount Type Radial Type

Soldering Conditions

Condition for Reflow

Available for Surface Mount Type.

- 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



Time inside soldering equipment

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line Package Type

Multi Control Devices

TACT Switch™

Custom-Products

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.

Sharp Feeling

Soft Feeling

Snap-in Type Surface Mount Type

Radial Type

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 flax	
Preheating temperature	Ambient temperature of the soldered surface of PC board. 100℃ 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
6380	SKQUBA, SKQUDB	33.5

Power Dual-in-line Package Type Multi Control

Detector

Push

Slide

Rotary

Encoders

Devices TACT Switch™

Custom-**Products**

Sharp Feeling Feeling

Snap-in Type

Mount Type

Type

		Unit:mm
Applicable series	Oty/reel (pcs.) (Minimum packing unit)	Tape dimensions
SKQM, SKPM	2,000	
SKHM, SKHU, SKQY, SKRT, SKRAAK, SKRAAL	3,000	Pull direction
SKQG	5,000 (Without stem type) 4,000 (With stem type)	2 4 4 Ø1.5 hole
SKRP	4,000	
SKRKAE, SKRKAH	4,500	(6.5)
SKQR, SKRB SKRM, SKRW	10,000	8
SKRE, SKRN, SKRKAG, SKSC, SKSD	5,000	
SKQL	3,000	2 4 4 91.5 hole P
SKRH	1,300	Ø1.5 hole
SKRV	1,500	Pull direction
SKPG	1,200	<u>Ø1.5 hole</u> <u>\$\frac{2}{\\$12}} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \</u>
SKRAAM, SKRAAQ	1,400	
SKQT	3,000	
SKRR	7,000	
SKPN	1,100	Pull direction
SKQUBA	750	40 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2
SKQUDB	600	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

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