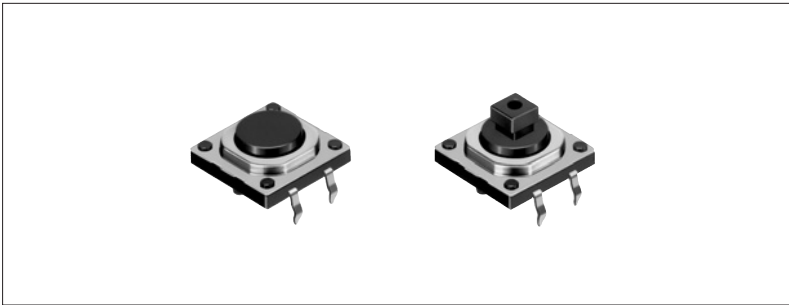


12×12mm Long-life TACT Switch (Snap-in)

SKQE Series

Long-life type with unique dust-proof structure and highly reliable metal contacts.

- Power
- Push
- Slide
- Rotary
- Encoders



- Jog Shuttle
- Telephone-hook
- Detector
- Vibration Sensors
- Dual-in-line Package Type
- Multi Control Devices

TACT

Features

- Some of output terminals can be also used as jumper leads, thus making circuit arrangement easy.
- Standard knobs are available.

Applications

- For operating various industrial devices, which require dust protection and long operation life (e.g. measuring instruments, office equipments, communication devices, etc.)

Products Line

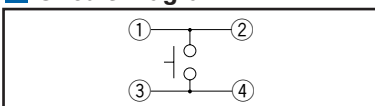
Products No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Operating life (5mA 5V DC)	Initial contact resistance	Stem color	Variety	Minimum packing unit (pcs.)	Drawing No.
SKQEAAA010	1.57N	Vertical	0.3	50mA 12V DC	10,000,000 cycles	100mΩ max.	Dark gray	Joint stem	1,000	1
SKQEACA010	2.55N						Red			
SKQEABA010	1.57N						Dark gray	Flat stem		2
SKQEADA010	2.55N						Red			

Dimensions

Unit : mm

No.	Style	PC board mounting hole dimensions (Viewed from switch mounting face)
1	<p>Joint stem type</p>	
2	<p>Flat stem type</p>	

Circuit Diagram



Note

Using a 1.6mm thick PC board is recommended.

For detailed specifications, see P.413
 For soldering conditions, see P.414
 For standard knobs, see P.418

Products Specifications

Items		Series	Sharp feeling type	Soft feeling type
		-20°C to +70°C		
Operating temperature range			-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 μ A 1V DC		
Electrical performance	Insulation resistance	100M Ω SKEY/PD : 50M Ω		
	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

Sharp Feeling

Soft Feeling

Snap-in Type

Surface Mount Type

Radial Type

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)

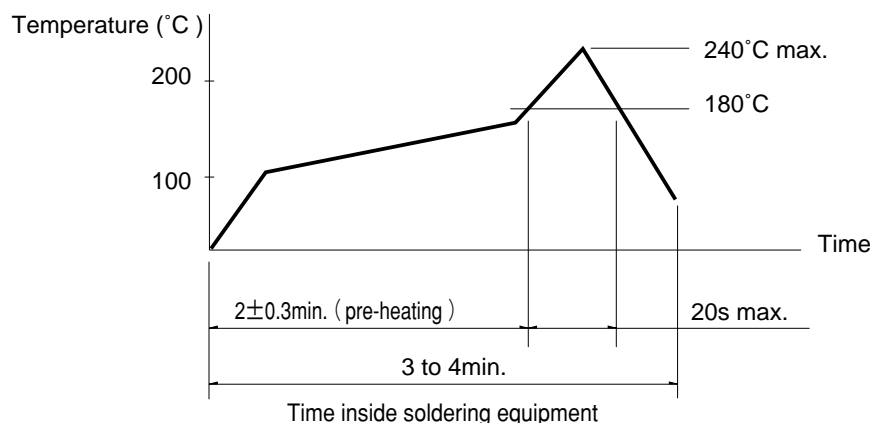
Color of light	Power dissipation	Forward pulse peak current	Forward current	Reverse voltage	Forward voltage	Reverse current	Peak emission wave length	Spectral line half width	Luminous intensity
	P (mW)	IFP (mA)	IFDC (mA)	VR (V)	VF (V) IF=10mA	IR (μ A) VR=4V	λ peak (nm) IF=10mA	$\Delta \lambda$ (nm) IF=10mA	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						590 TYP	30 TYP	0.4min. 1.0 TYP	
Orange (High brightness)				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	

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 flux
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


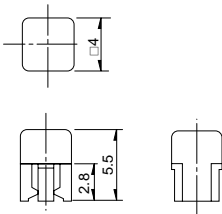

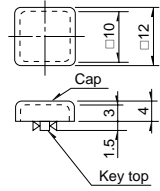
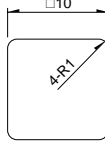

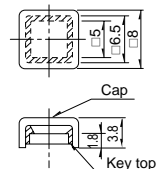
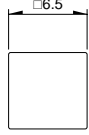

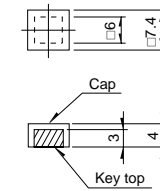
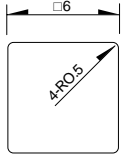
Items	Condition
Soldering temperature	350°C max.
Continuous soldering time	3s max.

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

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

Products Line of Knob

Unit : mm

Applicable model	Dimensions		Variety			Label dimensions (Unit:mm)	
			Color	Model			
SKHH Applicable to joint stem type			Keytop				
			Red Blue Ivory Black Yellow	SK2AA00410 SK2AA00420 SK2AA00430 SK2AA00440 SK2AA00450			
SKHC SKQE Applicable to joint stem type			Cap			 Thickness 0.1	
			Clear	SK2AA00510			
			Keytop		Keytop + Cap		
			Red Blue Ivory Black	SK2AA00010 SK2AA00020 SK2AA00030 SK2AA00040	SK2AA00060 SK2AA00070 SK2AA00080 SK2AA00090		
SKHJ			Cap			 Thickness 0.1	
			Clear	SK2AA00520			
			Keytop		Keytop + Cap		
			Red Blue Ivory Black Yellow	SK2AA00210 SK2AA00220 SK2AA00230 SK2AA00240 SK2AA00250	SK2AA00260 SK2AA00270 SK2AA00280 SK2AA00290 SK2AA00300		
SKEG Applicable to joint stem type			Cap			 Thickness 0.1	
			Clear	SK2AA00540			
			Keytop		Keytop + Cap		
			Red Blue Ivory Black Yellow	SK2AA00310 SK2AA00320 SK2AA00330 SK2AA00340 SK2AA00350	SK2AA00360 SK2AA00370 SK2AA00380 SK2AA00390 SK2AA00400		

Notes

1. The knob will be delivered with the switch, unmounted.
2. The label is not included.
3. For SK2AA00010 to SK2AA00100 type, check its mounting direction.

