# 9mm Diameter Water-proof with Round Terminals (Radial)Type

**SKRC** Series

RoHS applicable

A round terminal type achieve efficient surface mounting and boasts excellent dust-proof and water-proof performance.

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

# 844

#### Features

- Swiches are supplied with radial taping.
- A round terminal is most suitable for radial auto-insertion to PCB holes (Reduce switch rising in insertion & reduce cutter wearing by assembly machines).
- Better solderability, free from terminal cutting edge.

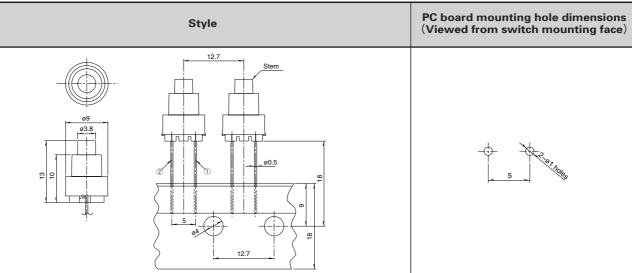
#### Applications

 Operating switches for washing machines and the other electronic technology-based units that require water-proof characteristics

#### Products Line

Products No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Rating (min.)	Operating life (5mA 5V DC)	Initial contact resistance	Stem color
SKRCACD010	1.57N	Vertical	0.25	50mA 12V DC	10 \( \mu \) A 100,000 cycles	100 000 evelos	500m Ω	Dark gray
SKRCADD010	2.55N	Vertical	0.25			max.	Red	

**Dimensions** Unit:mm



#### Circuit Diagram



#### Water Resisting Performance

Temperature of water	60℃
Depth of water	10cm
Immersion duration	240h

#### Notes

- 1. Using a 1.6mm thick PC board is recommended.
- 2. Switch terminals require a complete coating to satisfy the above described performance.
- 3. Please consult with us for further information about the coating agents.

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

# **Products Specifications**

Items	Series	Sharp feeling type	Soft feeling type		
Operati	ng temperature range	$-20^{\circ}$ C to $+70^{\circ}$ C $-20^{\circ}$ C to $+70^{\circ}$ C SKHJ/HL/QJ/RR/RV/QC/QK SKEG			
Operating temperature range		-30°C to +85°C	-40℃ to +90℃		
Electrical	Insulation resistance	100M Ω min. 100V DC SKEY/PD : 50M Ω min. 100V DC			
performance	Voltage proof	250V AC for 1 min. SKRE/SKSC/SKRB/RV/RH/RM/RW/RR/EY/PD: 100V AC for 1min.			
D 1334	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			
Durability	Lifetime	Shall be in accordance with individual specifications.			
Cold −30±2°C for 96h		for 96h			
Environmental performance	Dry heat	80±2℃ for 96h			
	Damp heat	60±2℃, 90 to 95%RH for 96h			

#### 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 λ peak(nm) IF=10mA	Spectral line half width Δ λ (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							555 TYP	20 TYP	0.8min. 2.0 TYP
Amber					2.7 max. 2.0 TYP	10 max.	590 TYP	30 TYP	0.4min. 1.0 TYP
Orange (High brightness)				3		TO Max.	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

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

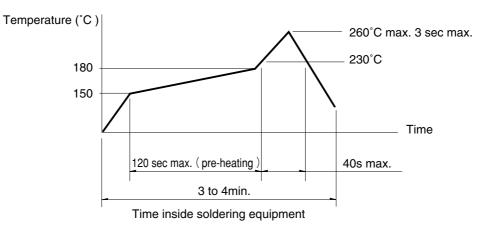
Type

### **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 \( \phi \) CA (K) or CC (T) at soldering portion (copper foil surface). A heat resisting tape should be used for fixed measurement.
- 3. Temperature profile



TACT Switch<sup>11</sup>

Custom-**Products** 

Sharp Feeling

Soft

**Feeling** 

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#### Note

- 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 flax	
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.

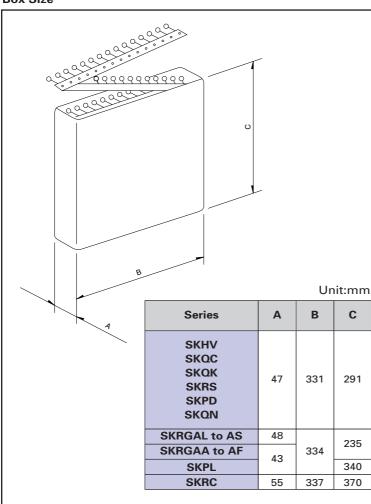
#### Notes

- 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.)

## **Specification of Radial Taping Package**

■ Taping Packaging for Auto-insertion
The SKHV, SKQC, SKQK, SKQN, SKQW, SKRC, SKRG, SKRS, SKPD and SKPL series are delivered with taping packaging.

#### **Box Size**



Quantity Accommodated Per Box

Series	Oty/reel (pcs.) (Minimum packing unit)				
SKHV SKQK	1,000				
SKRS	700				
SKQC	1,500				
SKPD	800				
SKRG	2,000				
SKQN SKRC	900				
SKPL	2,700				

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