



## Products Specifications

Series		Sharp feeling type	Soft feeling type
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 $\Omega$ min. 100V DC SKEY/PD : 50M $\Omega$ min. 100V DC	
	Voltage proof	250V AC for 1 min. SKRB/RH/RM/RW/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

Detector

Dual-in-line  
Package TypeMulti Control  
Devices

TACT

Custom-  
ProductsSharp  
FeelingSoft  
FeelingSnap-in  
TypeSurface  
Mount TypeRadial  
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)

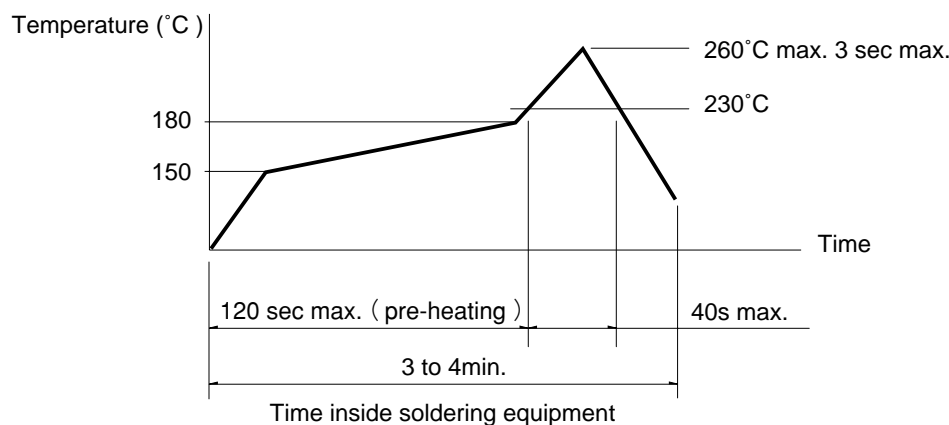
Color of light	Power dissipation	Forward pulse peak current	Forward current	Reverse voltage	Forward voltage	Reverse current	Peak emission wave length	Spectral line half width	Luminous intensity
	P (mW)	IFP (mA)	IFDC (mA)	VR (V)	VF (V) IF=10mA	IR ( $\mu$ A) VR=4V	$\lambda$ peak (nm) IF=10mA	$\Delta \lambda$ (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					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)				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, SKHU, SKRM, SKRR 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.
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 flux
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.

### 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 0.82.  
(EC-19s-8 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
- Detector
- Dual-in-line Package Type
- Multi Control Devices
- TACT**
- Custom-Products

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

# 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

Unit:mm

Series	A	B	C
SKHV SKQC SKQK SKRS SKPD SKQN	47	331	291
SKQW	61	334	235
SKRGAL to AS	48		
SKRGAA to AF	43		
SKPL			340
SKRC	55	337	370

## Quantity Accommodated Per Box

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

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