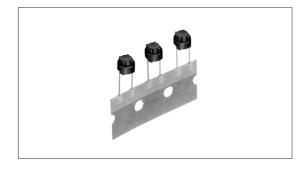
# **TACT** Switch<sup>™</sup> 6.45mm Diameter Low-contact Resistance with Round Terminals (Radial) Type

**SKPL** Series



# Soft feeling type with metal contacts and round terminals most suits automatic insertion.



# **Features**

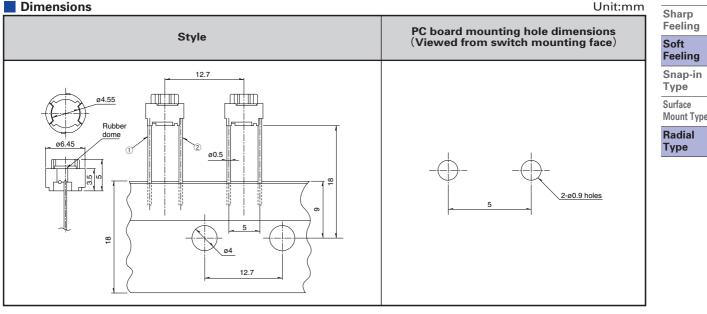
- Soft feeling type, but metal contacts with low contact resistance.
- Supplied with radial taping.
- A round terminal is most suited to radial auto-insertion/ mounting on the PC board.(Able to reduce switch rising when mounted, to reduce wearing of the cutters of the assemblers.)
- Better solderability thanks to no rupture plane of the terminal.

# Applications

- Car audio, car navigation
- For operating various electronic devices such as audio devices, communication devices, measuring instruments, automotive sets, etc.

Products Line								
Products No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Rating (min.)	Operating life (5mA 5V DC)	Initial contact resistance	Rubber color
SKPLAGD010	1.57N							Gray
SKPLAKD010	1.96N	Vertical	1.3	50mA 16V DC	10 µ A 1V DC	100,000 cycles	100mΩ max.	Green
SKPLAFD010	2.45N			100 00	IVDC			Yellow

# Dimensions



# Circuit Diagram

# Note

Using a 1.6mm thick PC board is recommended.

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



Slide

Detector

Rotary Encoders

Power

ACT Switch™

Custom-Products

# Products Specifications

Items	Series	Sharp feeling type	Soft feeling type	
Operating temperature range		−20°C to +70°C SKHJ/HL/QJ/RR/RV/QC/QK	−20°C to +70°C SKEG	Detector
		-30℃ to +85℃	-40℃ to +90℃	Push
Electrical	Insulation resistance	100M Ω min. 100V DC SKEY/PD : 50M Ω min. 100V DC		Slide
performance Voltage proof		250V AC SKRE/SKSC/SKRB/RV/RH/RM/RV	Rotary	
-	Vibration	10 to 55 to 10Hz/min., the amplitude is 3 direction of X, Y and Z	Encoders	
Durability -	Lifetime	Shall be in accordance wit	Power	
	Cold	−30±2°C for 96h		Dual-in-line Package Type
Environmental performance	Dry heat	80±2°C	Multi Control Devices	
-	Damp heat	60±2℃, 90 to 5	TACT Switch™ Custom-	
				Custom-

### 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(μA) 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		40 80 15 2.7 max.	2.05TYP		555 TYP	20 TYP	0.8min. 2.0 TYP		
Amber	40		2.7 max.	10 max.	590 TYP	30 TYP	0.4min. 1.0 TYP		
Orange (High brightness)			2.0 TYP	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

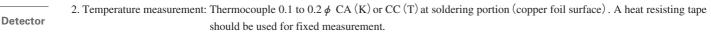
Products

# Soldering Conditions

### Condition for Reflow

#### Available for Surface Mount Type. (Except SKRM, SKRR Series)

1. Heating method: Double heating method with infrared heater.



# **Push** 3. Temperature profile

Slide

Rotarv

Encoders

Power

Dual-in-line

Package Type Multi Control

Devices

TACT Switch<sup>®</sup>

**Products** 

# Temperature (°C) 180 150 120 sec max. (pre-heating) 3 to 4min. Time inside soldering equipment

#### Note

- 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.

### 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, SKQC, SKQJ, SKQK, SKEG series)

ltems	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)

ltems	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<sup>™</sup> washing conditions.
- 2. Prevent flux penetration from the top side of the TACT Switch<sup>™</sup>.
- 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** $\overline{0}$ С B Unit:mm Series Α В С SKHV SKQC SKOK 47 331 291 SKRS SKPD SKQN SKRGAL to AS 48 235 SKRGAA to AF 334 43 SKPL 340 SKRC 55 337 370

Quantity Accommodated Per Box					
Series	Qty/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				

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