

TACT Switch™ High Operation Force with 5mm Height (SMD) Type

SKPG Series



Low-profile SMD type with high operation force best suited for automotive sets.

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

Features

- Strong operating force suited to in-vehicle needs will prevent misoperations.
- 5mm height suits thinner automotive sets most.
- 6.6×6.3mm small size helps to improve mounting density of components on PC board.
- Reflow solderable.
- Packaged with a 16mm wide embossed taping.

Applications

- Operating switches in all types of electronic equipment such as audio devices, communication devices, measuring instruments, and automotive sets, etc.

Products Line

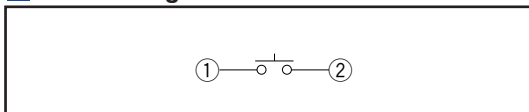
Products No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Rating (min.)	Operating life (5mA 5V DC)	Initial contact resistance	Rubber color
SKPGACE010	1.18N	Vertical	1.3	5mA 12V DC	10μA 1V DC	50,000 cycles	1kΩ max.	Light blue
SKPGAAE010	2.45N							Green
SKPGABE010	2.94N							Blue

Dimensions

Unit:mm

Style	PC board land dimensions (Viewed from switch mounting face)

Circuit Diagram



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
		Operating temperature range		
			-30°C to +85°C	-40°C to +90°C
Electrical performance	Insulation resistance	100MΩ min. 100V DC SKEY/PD : 50MΩ min. 100V DC		
	Voltage proof	250V AC for 1 min. SKRE/SKSC/SKRB/RV/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±2°C for 96h		
	Dry heat	80±2°C for 96h		
	Damp heat	60±2°C, 90 to 95%RH for 96h		

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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 Δλ (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									0.8min. 2.0 TYP
Amber									0.4min. 1.0 TYP
Orange (High brightness)				3	2.7 max. 2.0 TYP	10 max.	590 TYP	30 TYP	1.5min. 4.0 TYP
Green (High brightness)									4

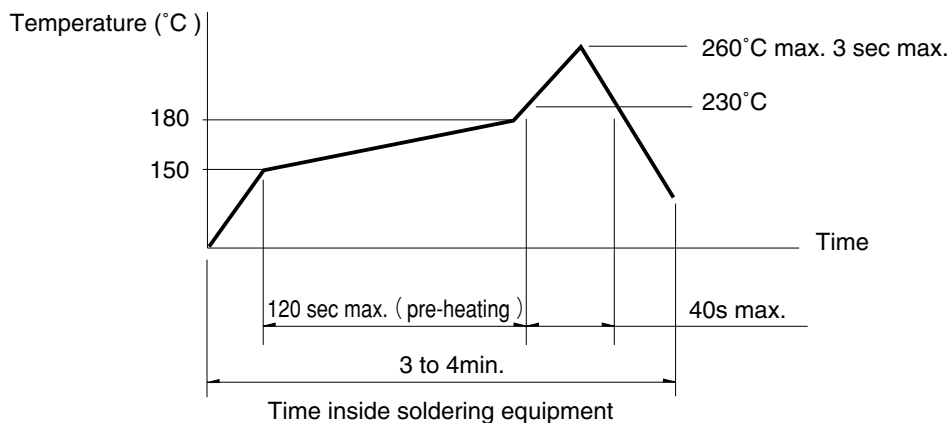
Sharp
FeelingSoft
FeelingSnap-in
TypeSurface
Mount TypeRadial
Type

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 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



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.

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.

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.)

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