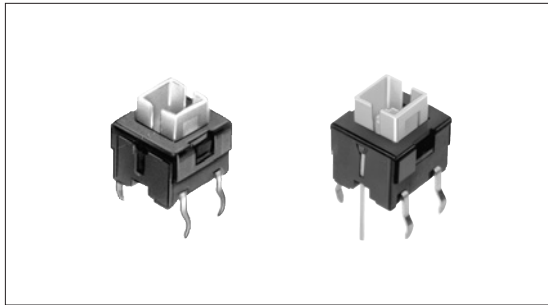


TACT Switch™ 8×8mm LED Built-in (Snap-in type)

SKHJ Series



LED built-in type with a good reputation for wider color varieties.



Features

- Snap-in type allows the switch to be mounted directly onto the PC board.
- Part of the output terminal can also be applied as jumper leads, making circuit design easier.
- Available with standard knobs.

Applications

- For various operation in audio equipment, office devices, communication devices, measuring devices, TVs and VCRs

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

Product Line

Without LED Type

Product No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Rating (min.)	Operating life (5mA 5V DC)	Initial contact resistance	Frame color	Minimum packing unit (pcs.)	Drawing No.
SKHJAAA010	0.98N	Vertical	0.25	50mA 12V DC	10μA 1V DC	1,000,000cycles	100mΩ max.	Black	1,000	1
SKHJABA010	1.57N					500,000cycles		Gray		
SKHJACA010	2.55N					200,000cycles		Brown		

With LED Type

Product No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Rating (min.)	Operating life (5mA 5V DC)	Initial contact resistance	Frame color	LED color	Minimum packing unit (pcs.)	Drawing No.
SKHJFAA010	0.98N	Vertical	0.25	50mA 12V DC	10μA 1V DC	1,000,000 cycles	100mΩ max.	Black	Red	1,000	2
SKHJFBA010									Pure green		
SKHJFCA010									Amber		
SKHJFGA010									Orange (High brightness)		
SKHJFHA010									Green (High brightness)		
SKHJFDA010	1.57N	Vertical	0.25	50mA 12V DC	10μA 1V DC	500,000 cycles	100mΩ max.	Gray	Red	1,000	2
SKHJFEA010									Pure green		
SKHJFFA010									Amber		
SKHJGRA010									Green (High brightness)		
SKHJGSA010									Orange (High brightness)		
SKHJGEA010	2.55N	Vertical	0.25	50mA 12V DC	10μA 1V DC	200,000 cycles	100mΩ max.	Brown	Red	1,000	2
SKHJGFA010									Pure green		
SKHJGGA010									Amber		


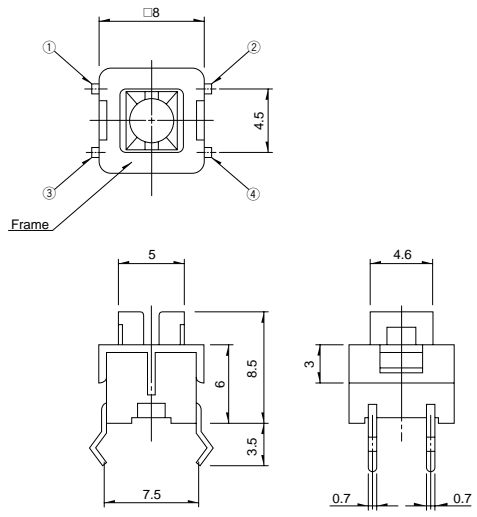
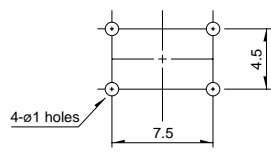

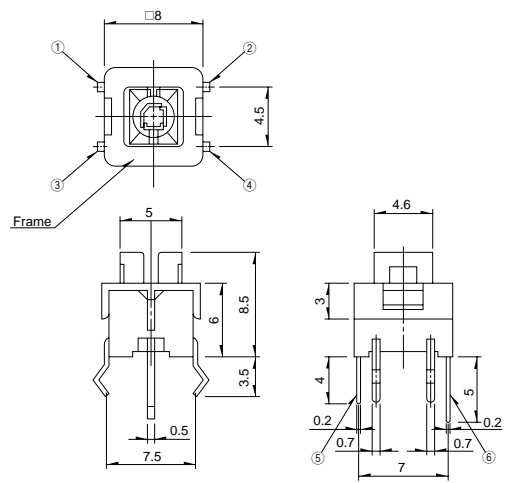
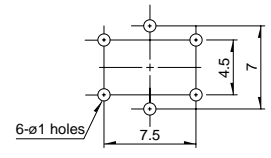
Refer to P.373 for product specifications.

Refer to P.374 for soldering conditions.

Refer to P.378 for standard knobs.

Dimensions

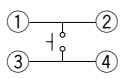
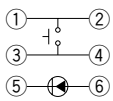
Unit:mm

No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)
1			
2			

Note

Please use 1.6mm thick PC boards.

Circuit Diagram

Without LED type	With LED type
	

Product 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 1minute SKRE/SC/RB/RM/RW/RR/EY/PD : 100V AC for 1minute		
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 2hours 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		

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package TypeMulti Control
Devices

TACT Switch™

Custom-
Products

Note

The automotive operating temperature range to be individually discussed upon request.

Specifications of LED (SKHJ)

Color of illumination	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							555 TYP	20 TYP	0.8min. 2.0 TYP		
Amber							590 TYP	30 TYP	0.4min. 1.0 TYP		
Orange (High brightness)						3	2.7 max. 2.0 TYP	10 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

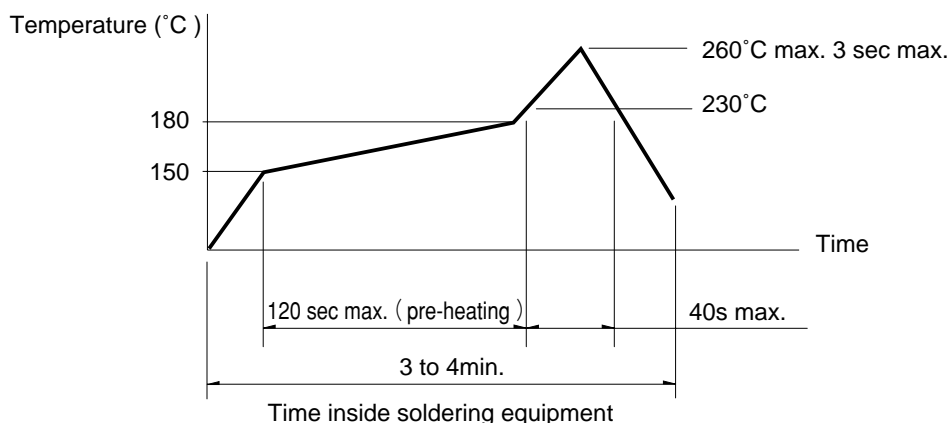
Sharp
FeelingSoft
FeelingSnap-in
TypeSurface
Mount TypeRadial
Type

Soldering Conditions

Condition for Reflow

Available for Surface Mount Type.

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 solder joints (copper foil surface). A heat resistive tape should be used to fix thermocouple.
3. Temperature profile



Note

1. The above temperature shall be measured 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 material, size, thickness of PC boards and others. The above-stated conditions shall also apply to switch surface temperatures.
2. Soldering conditions differ depending on reflow soldering machines. Prior verification of soldering condition is highly recommended.

Conditions for Auto-dip

Available for Snap-in Type and Radial Type
(Except SKHJ, SKHL, SKQJ, SKQK, SKEG series)

Items	Condition
Flux built-up	Mounting surface should not be exposed to flux
Preheating temperature	Ambient temperature of the soldered surface of PC board. 100°C max.
Preheating time	60s max.
Soldering temperature	260°C max.
Duration of immersion	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 min 0.81.
(EC-19S-8 by TAMURA Corporation, or equivalents.)

Manual Soldering (Except SKRT series)

Items	Condition
Soldering temperature	350°C max.
Duration of soldering	3s max.
Capacity of soldering iron	60W max.

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

Product Line of Knobs

Unit:mm

	Applicable model	Dimensions	Variety		Label dimensions (Unit:mm)				
			Color	Model					
Detector	SKHH Applicable to joint stem type		Keytop						
Push			Red Blue Ivory Black Yellow	SK2AA00410 SK2AA00420 SK2AA00430 SK2AA00440 SK2AA00450					
Slide						Cap			
Rotary						Clear	SK2AA00510		
Encoders						Keytop		Keytop + Cap	
Power	SKHC SKQE Applicable to joint stem type		Cap						
Dual-in-line Package Type			Red Blue Ivory Black	SK2AA00010 SK2AA00020 SK2AA00030 SK2AA00040		SK2AA00060 SK2AA00070 SK2AA00080 SK2AA00090			
Multi Control Devices							Keytop		Keytop + Cap
TACT Switch™							Keytop		Keytop + Cap
Custom-Products							Keytop		Keytop + Cap
Sharp Feeling	SKHJ		Cap						
Soft Feeling			Red Blue Ivory Black Yellow	SK2AA00210 SK2AA00220 SK2AA00230 SK2AA00240 SK2AA00250		SK2AA00260 SK2AA00270 SK2AA00280 SK2AA00290 SK2AA00300			
Snap-in Type							Keytop		Keytop + Cap
Surface Mount Type							Keytop		Keytop + Cap
Radial Type							Keytop		Keytop + Cap
	SKEG Applicable to joint stem type		Cap						
			Red Blue Ivory Black Yellow	SK2AA00310 SK2AA00320 SK2AA00330 SK2AA00340 SK2AA00350		SK2AA00360 SK2AA00370 SK2AA00380 SK2AA00390 SK2AA00400			
							Keytop		Keytop + Cap
							Keytop		Keytop + Cap
							Keytop		Keytop + Cap

Notes

1. The knob will be delivered together with the switch but packed separately.
2. The label is not included.
3. For SK2AA00010 to SK2AA00090 types, please check the mounting direction.

