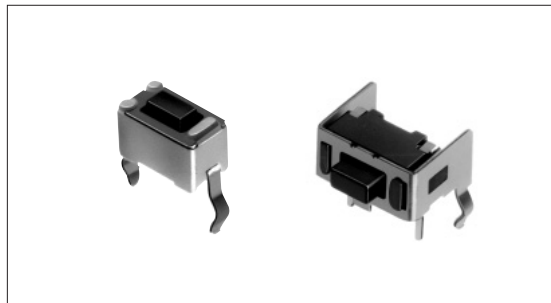


TACT Switch™ 6×3.5mm Compact (Snap-in Type)

SKHL Series



A vertical and horizontal type switch contributing to high density mounting.



Product Line

Vertical Type

Product No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Rating (min.)	Operating life (5mA 12V DC)	Initial contact resistance	Stem color	Stem height	Minimum order unit (pcs.)	Drawing No.
SKHLAAA010	0.98N	Vertical	0.25	50mA 12V DC	10μA 1V DC	50,000 cycles	500mΩ max.	Black	h=4.3mm	1,000	1
SKHLACA010	1.57N							Dark gray			
SKHLAJA010	2.55N							Red			
SKHLABA010	0.98N							Black	h=5mm		
SKHLADA010	1.57N							Dark gray			
SKHLAKA010	2.55N							Red			

Horizontal Type

Product No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Rating (max.)	Operating life (5mA 5V DC)	Initial contact resistance	Stem color	Terminal length	Minimum order unit (pcs.)	Drawing No.
SKHLLAA010	0.98N	Horizontal	0.25	50mA 12V DC	10μA 1V DC	50,000 cycles	500mΩ max.	Black	ℓ =3.5mm (PC board t: 1.6)	1,000	2
SKHLLBA010	1.57N							Dark gray			
SKHLLFA010	2.55N							Red			
SKHLLCA010	0.98N							Black	ℓ =2.5mm (PC board t: 1.0)		
SKHLLDA010	1.57N							Dark gray			

Packing Specifications

Bulk

Number of packages (pcs.)		Export package measurements (mm)
1 case /Japan	1 case /export packing	
10,000	30,000	309×476×347

Note

Please place purchase orders per minimum order unit N (integer).

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products

Sharp
Feeling

Soft
Feeling

Snap-in
Type

Surface
Mount Type

Radial
Type


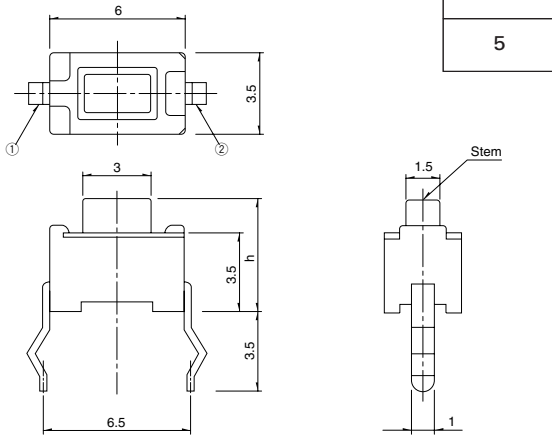
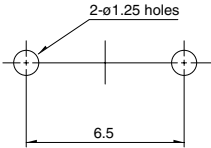

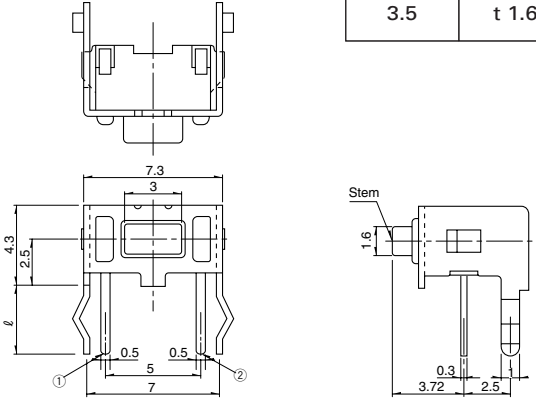
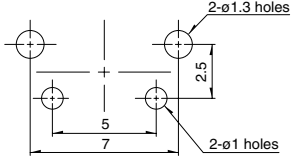


Automotive
Use

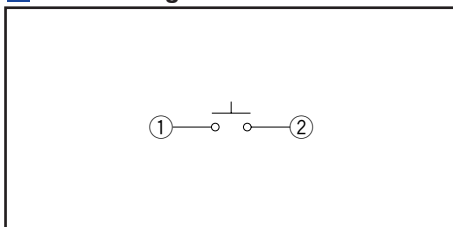
Refer to P.328 for soldering conditions.

Dimensions

Unit:mm

No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)						
1		<p>Vertical type</p>  <table border="1" data-bbox="986 360 1098 521"> <tr><td>h</td></tr> <tr><td>4.3</td></tr> <tr><td>5</td></tr> </table>	h	4.3	5				
h									
4.3									
5									
2		<p>Horizontal type</p>  <table border="1" data-bbox="874 1003 1098 1160"> <tr><th>ℓ</th><th>PC board</th></tr> <tr><td>2.5</td><td>t 1.0</td></tr> <tr><td>3.5</td><td>t 1.6</td></tr> </table>	ℓ	PC board	2.5	t 1.0	3.5	t 1.6	
ℓ	PC board								
2.5	t 1.0								
3.5	t 1.6								

Circuit Diagram














- Detector
- Push
- Slide
- Rotary
- Encoders
- Power
- Dual-in-line Package Type
- TACT Switch™**
- Custom-Products

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



List of Varieties

Sharp Feeling Type

Series		SKHR	SKHL	SKHH	SKHW	SKRD	SKQJ	SKHL	SKHH	SKQJ	SKHJ	SKQB
Photo												
Type		Snap-in										
Features		—			Dust-proof type	Horizontal type	—	Horizontal type			With LED	Water-proof
Operating direction	Vertical	●	●	●	●	—	●	—			●	●
	Horizontal	—				●	—	●	●	●	—	
Dimensions (mm)	W	□4.5	6	□6		6.2	□6.6	7.3	7.5		□8	□10
	D		3.5			7.15		7.22	7.85			
	H	3.8	4.3			7.4	5	4.3	7.4	7.3	8.5	5
Operation force coverage		1N	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕
		5N		↕							↕	↕
Ground terminal		—		●	—			●	—			
Operating temperature range		-20°C to +70°C SKHJ/HL(Vertical Type) /QJ										
		-30°C to +85°C										
Electrical performance	Insulation resistance	100MΩ min. 100V DC										
	Voltage proof	250V 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 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										
Page		275	276	278	282	283	284	276	278	284	286	288

W : Width. The most outer dimension excluding terminal portion.
 D : Depth. The most outer dimension excluding terminal portion.
 H : Height. The minimum dimension if there are variances.

- TACT Switch™ Soldering Conditions328
- TACT Switch™ Cautions329
- Product Line of Knob for TACT Switch™330

Note

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

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products

Sharp
Feeling

Soft
Feeling

Snap-in
Type

Surface
Mount Type

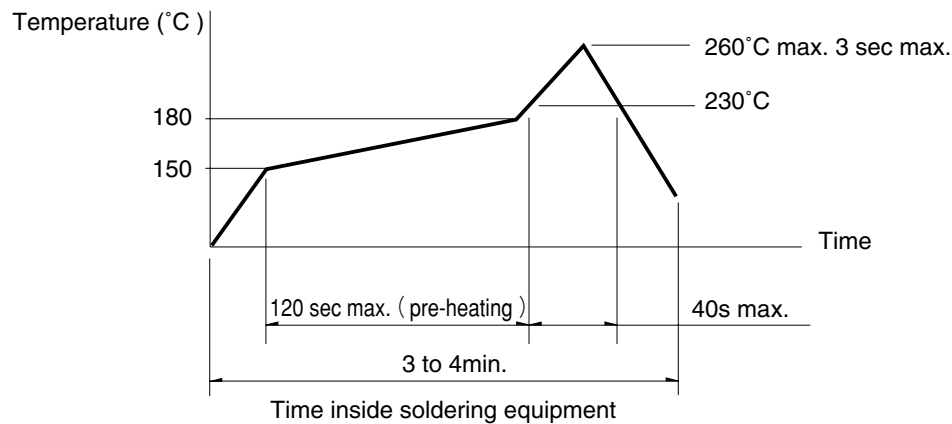
Radial
Type

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



Notes

1. The above temperature shall be measured of the top of switch. 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 availability of TACT Switch™ washing.
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 is stable with 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

TACT Switch™

Custom-
ProductsSharp
FeelingSoft
FeelingSnap-in
TypeSurface
Mount TypeRadial
Type