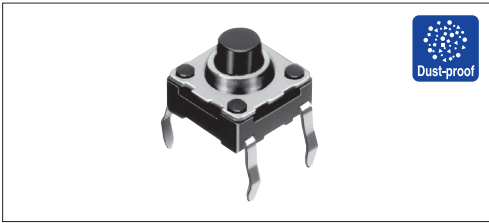


Suitable for various electronic devices with unique dust-proof structure and sharp operation feeling.

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



Typical Specifications

Items	Specifications
Rating (max.)	50mA 12V DC
Rating (min.)	10μA 1V DC
Initial contact resistance	100mΩ max.
Travel (mm)	0.3

Product Line

Product No.	Operating force	Operating direction	Operating life (5mA 5V DC)	Stem color	Stem height	Minimum order unit (pcs.)	
						Japan	Export
SKHWALA010	1.57N	Toppush	1,000,000cycles	Dark gray	h=4.3mm	1,000	1,000
SKHWARA010	2.55N		500,000cycles	Red			
SKHWAPA010	1.57N		1,000,000cycles	Dark gray	h=5mm		
SKHWAQA010	2.55N		500,000cycles	Red			

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

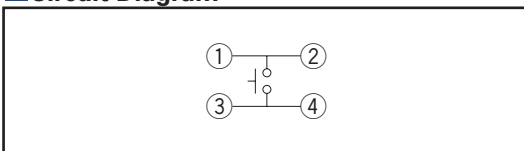
- Sharp Feeling
- Soft Feeling
- Snap-in Type
- Surface Mount Type
- Radial Type

Dimensions

Unit:mm

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

Circuit Diagram























Note

Please use 1.6mm thick PC boards.

Refer to P.288 for soldering conditions.

## List of Varieties

Type		Sharp Feeling Type									
		Snap-in									
Series		SKHR	SKHL	SKHH	SKHW	SKQJ	SKQB	SKQE	SKHC	SKHL	SKHH
Detector	Photo										
Push	Features	—	—	—	—	—	—	Long Life	—	—	—
Slide	Water-proof	—	—	—	○	—	●	—	—	—	—
Rotary	Dust-proof	—	—	—	●	●	●	●	—	—	—
Encoders	Operating direction	Top push	●	●	●	●	●	●	●	—	—
Power		Side push	—	—	—	—	—	—	—	●	●
Dual-in-line Package Type	Dimensions (mm)	W	□ 4.5	6	□ 6	□ 6.6	□ 10	□ 12	7.3	7.5	
TACT Switch™		D	—	3.5	—	—	—	—	7.22	7.85	
		H	3.8	4.3	4.3	5	5	4.3	7.4	7.4	
	Operation force coverage	~1N	↕	↕	↕	↕	↕	↕	↕	↕	
		1N~2N	↕	↕	↕	↕	↕	↕	↕	↕	
		2N~3N	↕	↕	↕	↕	↕	↕	↕	↕	
		3N~4N	↕	↕	↕	↕	↕	↕	↕	↕	
		4N~5N	↕	↕	↕	↕	↕	↕	↕	↕	
	Travel (mm)	0.25			0.3	0.25	0.3			0.25	
Sharp Feeling	Ground terminal	—	—	●	—	—	—	—	—	●	●
Soft Feeling	Operating temperature range	-30°C to +85°C	-40°C to +90°C			-30°C to +85°C	-40°C to +90°C			-40°C to +85°C	-40°C to +90°C
Snap-in Type	Automotive use	—	●	●	—	—	—	—	—	—	—
Surface Mount Type	Life Cycle										
Radial Type	Rating (max.) (Resistive load)	50mA 12V DC									
	Rating (min.) (Resistive load)	10μA 1V DC									
	Electrical performance	Insulation resistance	100M Ω min. 100V DC for 1min.								
		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	-40 ± 2°C for 96h			-30 ± 2°C for 96h	-40 ± 2°C for 96h				
		Dry heat	90 ± 2°C for 96h			-80 ± 2°C for 96h	90 ± 2°C for 96h				
		Damp heat	60 ± 2°C, 90 to 95%RH for 96h				60 ± 2°C, 90 to 95%RH for 1000h	60 ± 2°C, 90 to 95%RH for 96h			
	Page	229	230	232	236	237	239	241	243	230	232

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.

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- TACT Switch™ Cautions . . . . . 289

### Notes

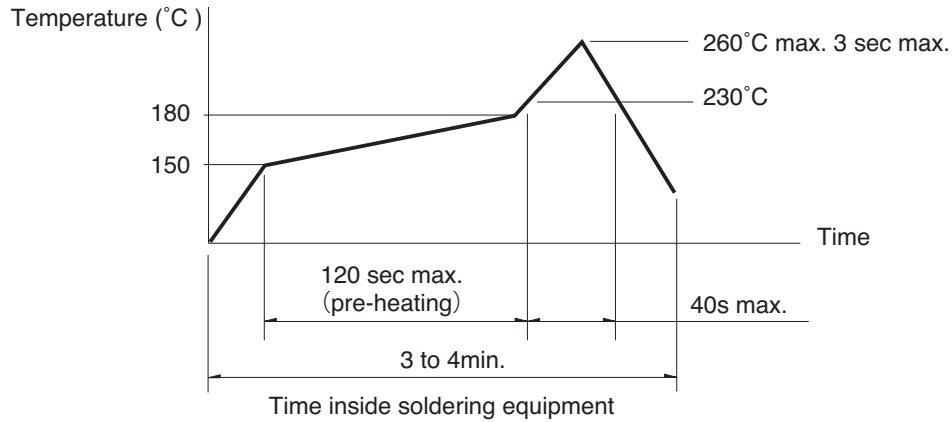
1. The automotive operating temperature range to be individually discussed upon request.
2. ● indicates applicability to all products in the series, while ○ indicates applicability to some products in the series.

## 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

Items	Condition
<b>Flux built-up</b>	Mounting surface should not be exposed to flux
<b>Preheating temperature</b>	Ambient temperature of the soldered surface of PC board. 100°C max.
<b>Preheating time</b>	60s max.
<b>Soldering temperature</b>	260°C max.
<b>Duration of immersion</b>	5s max.
<b>Number of soldering</b>	2times max.

SKHH、SKPD Series

Items	Condition
<b>Flux built-up</b>	Mounting surface should not be exposed to flux
<b>Preheating temperature</b>	Ambient temperature of the soldered surface of PC board. 110°C max.
<b>Preheating time</b>	60s max.
<b>Soldering temperature</b>	260°C max.
<b>Duration of immersion</b>	5s max.
<b>Number of soldering</b>	2times max.

SKQJ、SKQK、SKEG Series

Items	Condition
<b>Flux built-up</b>	Mounting surface should not be exposed to flux
<b>Preheating temperature</b>	Ambient temperature of the soldered surface of PC board. 100°C max.
<b>Preheating time</b>	45s max.
<b>Soldering temperature</b>	255°C max.
<b>Duration of immersion</b>	5s max.
<b>Number of soldering</b>	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
<b>Soldering temperature</b>	350°C max.
<b>Duration of soldering</b>	3s max.
<b>Capacity of soldering iron</b>	60W max.

SKHH、SKHW、SKRG、SKPD Series

Items	Condition
<b>Soldering temperature</b>	360°C max.
<b>Duration of soldering</b>	3s max.
<b>Capacity of soldering iron</b>	60W max.

SKQJ、SKQK、SKEG Series

Items	Condition
<b>Soldering temperature</b>	350°C max.
<b>Duration of soldering</b>	3s max.
<b>Capacity of soldering iron</b>	20W max.

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

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