

■ Typical Specifications

Items	Specifications
Rating (max.)	50mA 12V DC
Rating (min.)	10 μ A 1V DC
Initial contact resistance	100m Ω max.
Travel (mm)	0.3

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Sharp
FeelingSoft
FeelingSnap-in
TypeSurface
Mount TypeRadial
Type

■ Product Line

Product Line								
Product No.	Operating force	Operating direction	Operating life (5mA 5V DC)	Stem color	Stem	Minimum order unit (pcs.)		Drawing No.
						Japan	Export	
SKHCBJA010	0.74N	Toppush	500,000 cycles	Blue	Joint stem	1,000	1,000	1
SKHCBEA010	1.27N		1,000,000 cycles	Black				
SKHCBGA010	2.55N		500,000 cycles	Dark gray				
SKHCBKA010	0.74N			Blue	Flat stem			2
SKHCBFA010	1.27N		1,000,000 cycles	Black				
SKHCBHA010	2.55N		500,000 cycles	Dark gray				

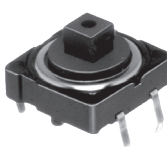
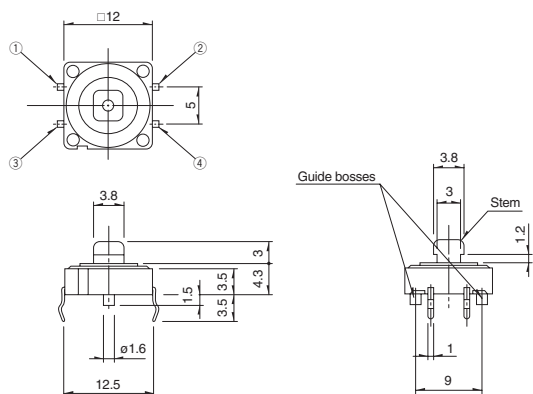
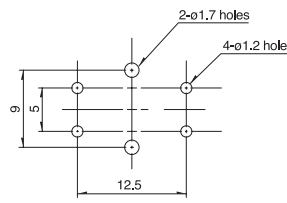
■ Packing Specifications

Bulk

Number of packages (pcs.)		Export package measurements (mm)
1 case / Japan	1 case / export packing	
5,000	15,000	309 × 476 × 347


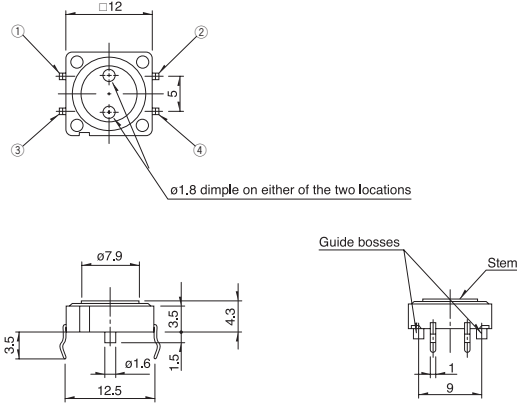
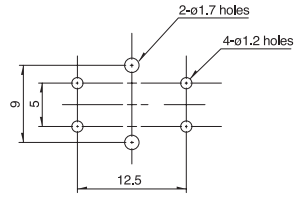
■ Dimensions

Unit:mm

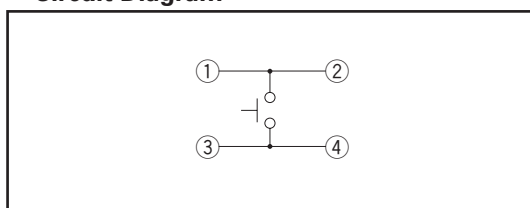
No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)
1			

Dimensions

Unit:mm

Detector	No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)
Push	2			
Slide				
Rotary				
Encoders				
Power				
Dual-in-line Package Type				
TACT Switch™				

Circuit Diagram

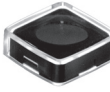
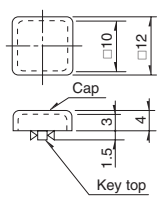
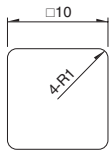


Note

Please use 1.6mm thick PC boards.

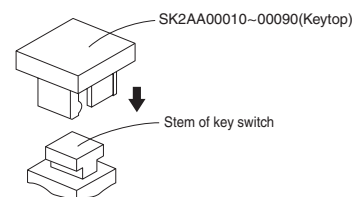
Product Line of Knobs

Unit:mm































Applicable model	Dimensions		Variety		Label dimensions (Unit:mm)	
			Color	Model		
SKHC Applicable to joint stem type			Cap			
			Clear	SK2AA00510		
			Keytop		Keytop+Cap	
			Red Blue Ivory Black	SK2AA00010 SK2AA00020 SK2AA00030 SK2AA00040	SK2AA00060 SK2AA00070 SK2AA00080 SK2AA00090	

Notes

1. The knob will be delivered together with the switch but packed separately.
2. The label is not included.
3. For SK2AA000010 to SK2AA000090 types, please check the mounting direction.



List of Varieties

Type		Sharp Feeling Type										
		Snap-in		Surface Mount								
Series		SKQJ	SKQB	SKSH	SKRW	SKRM	SKRB	SKRR	SKQG	SKTC	SKSK	SKSD
Photo												
Features		—	—	Low-profile				Low-profile and long life	Low-profile	Double action		
Water-proof		—	●	—	○	—	—	—	—	●	—	—
Dust-proof		●	●	○	○	○	○	○	○	●	—	—
Operating direction	Toppush	—	—	●	●	●	●	●	●	●	●	●
	Sidepush	●	●	—	—	—	—	—	—	—	—	—
Dimensions (mm)	W	7.5	11.5	3.3	□3.7	□4.5	□4.8	7.5	□5.2	3.4	3.5	4.1
	D	7.85	11.9	2.9				7		2.2	3.2	3.9
	H	7.3	11.3	0.35		0.4	0.55	0.6	0.8	0.62	0.6	
Operation force coverage	~1N									※		
	1N~2N											
	2N~3N											
	3N~4N											
	4N~5N											
Travel (mm)		0.25	0.3	0.15		0.15/0.2		0.25		※		
Ground terminal		—	—	—	—	—	—	—	—	—	●	●
Operating temperature range		-20℃ to +70℃	-40℃ to +90℃	-30℃ to +85℃						—		
Automotive use		—	●	—	—	—	●	—	○	—	—	—
Life Cycle												
Rating (max.) (Resistive load)		50mA 12V DC										
Rating (min.) (Resistive load)		10 μA 1V DC										
Electrical performance	Insulation resistance	100MΩ min. 100V DC for 1min.										
	Voltage proof	250V AC for 1min.		100V AC for 1min.		250V AC for 1min.	100V AC for 1min.		250V AC for 1min.	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 2hours respectively										
	Lifetime	Shall be in accordance with individual specifications.										
Environmental performance	Cold	-30 ± 2℃ for 96h	-40 ± 2℃ for 96h	-30 ± 2℃ for 96h								
	Dry heat	80 ± 2℃ for 96h	90 ± 2℃ for 96h	80 ± 2℃ for 96h								
	Damp heat	60 ± 2℃, 90 to 95%RH for 96h	60 ± 2℃, 90 to 95%RH for 1000h	60 ± 2℃, 90 to 95%RH for 96h								
Page		237	239	245	246	247	248	249	250	252	253	254

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

- The automotive operating temperature range to be individually discussed upon request.
- indicates applicability to all products in the series, while ○ indicates applicability to some products in the series.
- ※ See the relevant pages for respective product descriptions

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

TACT Switch™ Soldering Conditions

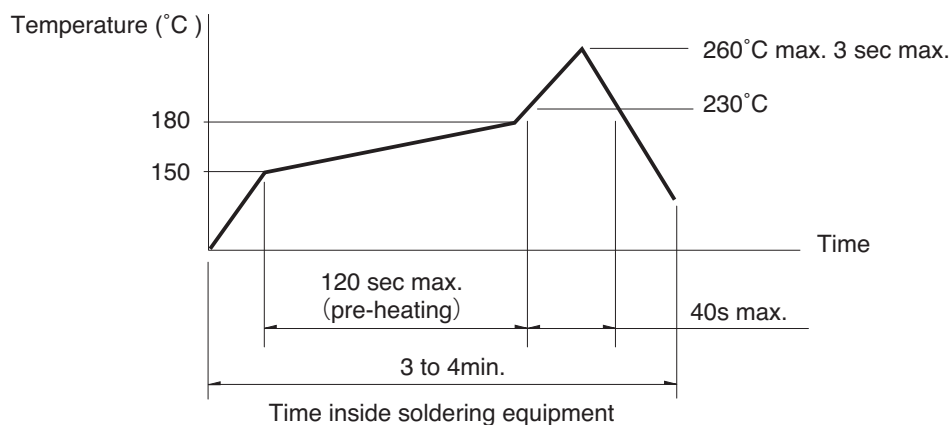
Condition for Reflow

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

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



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
Flux built-up	Mounting surface should not be exposed to fluk
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.

SKHH、SKPD Series

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

SKQJ、SKQK、SKEG Series

Items	Condition
Flux built-up	Mounting surface should not be exposed to fluk
Preheating temperature	Ambient temperature of the soldered surface of PC board. 100°C max.
Preheating time	45s max.
Soldering temperature	255°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.

SKHH、SKHW、SKRG、SKPD Series

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

SKQJ、SKQK、SKEG Series

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

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