

Typical Specifications

Items	Specifications
Rating (max.)	50mA 12V DC
Rating (min.)	10 μ A 1V DC
Initial contact resistance	100m Ω max.
Travel (mm)	0.25

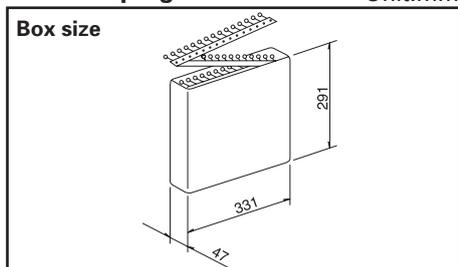
Product Line

Product No.	Operating force	Operating direction	Operating life (5mA 5V DC)	Stem color	Stem height	Minimum order unit (pcs.)	
						Japan	Export
SKQKAAD010	0.98N	Toppush	1,000,000cycles	Black	h=5mm	1,000	1,000
SKQKABD010	1.57N		500,000cycles	Dark gray			
SKQKADD010	0.98N		1,000,000cycles	Black	h=7mm		
SKQKAED010	1.57N		500,000cycles	Dark gray			
SKQKAJD010	0.98N		200,000cycles	Black	h=9.5mm		
SKQKAKD010	1.57N			Dark gray			

Packing Specifications

Radial Taping

Unit:mm



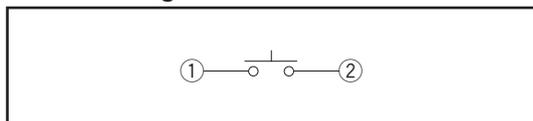
Number of packages (pcs.)			Export package measurements (mm)
1 box	1 case / Japan	1 case / export packing	
1,000	10,000	10,000	354 × 606 × 272

Dimensions

Unit:mm

Style	PC board mounting hole dimensions (Viewed from switch mounting face)								
<table border="1" style="margin-top: 10px;"> <thead> <tr> <th>h</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>3.5</td> </tr> <tr> <td>7</td> <td>3.3</td> </tr> <tr> <td>9.5</td> <td>3</td> </tr> </tbody> </table>	h	A	5	3.5	7	3.3	9.5	3	
h	A								
5	3.5								
7	3.3								
9.5	3								

Circuit Diagram



Note

Please use 1.6mm thick PC boards.

List of Varieties

Type		Sharp Feeling Type			Soft Feeling Type								
		Radial			Snap-in			Surface Mount			Radial		
Series		SKRG	SKGK	SKRC	SKEG	SKEG	SKPF	SKPM	SKPG	SKPR	SKPL	SKPD	
Detector													
Photo													
Features		Round terminal type	—	Round terminal type	—	—	High operation force and long travel	Low contact resistance	—	High operation force and Low contact resistance	Round terminal and low contact resistance	—	
Water-proof		—	—	●	—	—	—	—	—	—	—	—	
Dust-proof		—	—	●	—	—	—	—	—	—	—	—	
Power	Operating direction												
	Toppush	●	●	●	●	—	●	●	●	●	●	●	
	Sidepush	—	—	—	—	●	—	—	—	—	—	—	
Dual-in-line Package Type	Dimensions (mm)												
		W	φ6.2	□6.6	φ9	□6	7.5	8	5.9	6.6	7.5	φ6.45	□7.8
		D	—	—	—	—	9.9	9	6	6.3	7.8	—	—
	H	4.3	5	13	7	7.3	10	5		6.5	5		
Contact		—	—	—	Carbon			Silver	Carbon	Silver	Carbon		
Operation force coverage	~1N												
	1N~2N	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	
	2N~3N	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	
	3N~4N	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	
	4N~5N	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	
Travel (mm)		0.25			1		※1	1.3		1	1.3	※1	
Ground terminal		—	—	—	—	—	—	—	—	—	—	—	
Operating temperature range		-40°C to +90°C	-20°C to +70°C	-40°C to +90°C	-20°C to +70°C			-40°C to +90°C					
Automotive use		●	—	—	—	—	●	●	●	●	●	●	
Life Cycle													
Electrical performance	Rating (max.) (Resistive load)	50mA 12V DC			5mA 12V DC			50mA 16V DC	5mA 12V DC	50mA 16V DC		5mA 12V DC	
	Rating (min.) (Resistive load)	10 μA 1V DC											
	Insulation resistance	100MΩ min. 100V DC for 1min.			100MΩ min. 100V DC for 1min.								
	Voltage proof	250V AC for 1min.			250V AC for 1min.							※2	
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			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							※3	
	Lifetime	Shall be in accordance with individual specifications.			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	-30±2°C for 96h		-40±2°C for 96h	-30±2°C for 96h		-40±2°C for 1000h	-40±2°C for 96h		
	Dry heat	90±2°C for 96h	80±2°C for 96h	90±2°C for 96h	80±2°C for 96h		90±2°C for 96h	80±2°C for 96h		90±2°C for 1000h	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						60±2°C, 90 to 95%RH for 1000h	60±2°C, 90 to 95%RH for 96h	
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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.
3. ※ 1 See the relevant pages for respective product descriptions
4. ※ 2 50MΩ min. 100V DC for 1min. SKPDAF:100MΩmin. 100V DC for 1min.
5. ※ 3 100V AC for 1min.SKPDAF:250V DC for 1min.

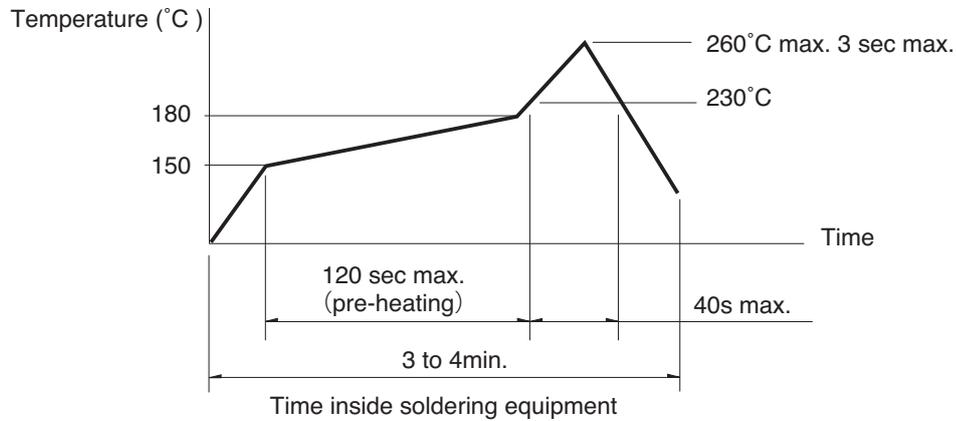
TACT Switch™ Soldering Conditions

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



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 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.

SKHH、SKPD 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. 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 flux
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.

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