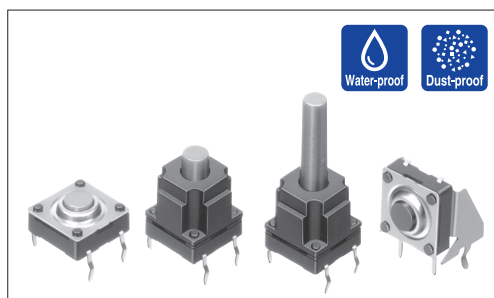




Excellent water-proof and dust-proof structure suitable for home appliances used around water.



#### Typical Specifications

Items	Specifications
Rating (max.)	50mA 12V DC
Rating (min.)	10 $\mu$ A 1V DC
Initial contact resistance	500m $\Omega$ max.
Travel (mm)	0.3

#### Product Line

##### Toppush Type

Product No.	Operating force	Operating direction	Operating life (5mA 5V DC)	Stem color	Stem height	Minimum order unit (pcs.)		Drawing No.
						Japan	Export	
SKQBARA010	1.57N	Toppush	100,000cycles	Dark gray	5mm	1,000	1,000	1
SKQBASA010	2.55N			Red				
SKQBAPA010	1.57N			Dark gray	13mm			2
SKQBAJA010	2.55N			Red				
SKQBAQA010	1.57N			Dark gray	23.2mm			
SKQBAMA010	2.55N			Red				

##### Sidepush Type

Product No.	Operating force	Operating direction	Operating life (5mA 5V DC)	Stem color	Minimum order unit (pcs.)		Drawing No.
					Japan	Export	
SKQBLBA010	1.57N	Sidepush	100,000cycles	Dark gray	1,000	1,000	3

#### Packing Specifications

##### Bulk

Series	Number of packages (pcs.)		Export package measurements (mm)
	1 case / Japan	1 case / export packing	
Other	4,000	12,000	309 × 476 × 347
SKQBAQ, SKQBAM	2,000	6,000	

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line  
Package Type

TACT Switch™

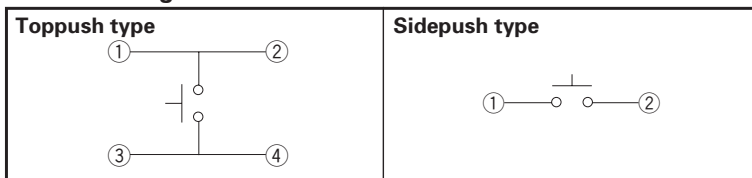
Sharp  
FeelingSoft  
FeelingSnap-in  
TypeSurface  
Mount TypeRadial  
Type

Dimensions

Unit:mm

No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)						
1									
2		<table border="1" style="margin-left: 20px;"> <tr> <td>h</td> <td>A</td> </tr> <tr> <td>13</td> <td>3.8</td> </tr> <tr> <td>23.2</td> <td>3.5</td> </tr> </table>	h	A	13	3.8	23.2	3.5	
h	A								
13	3.8								
23.2	3.5								
3									

Circuit Diagram



Note

Please use 1.6mm thick PC boards.





















Water Resisting Performance

Items	Model	SKQBAP, SKQBAJ, SKQBAQ, SKQBAM, SKQBAR, SKQBAS	SKQBLB
Temperature of water		60°C	60°C
Depth of water		10cm	10cm
Immersion duration		240h	1h

Notes

1. When the switch is used in an environment subject to high humidity or condensation, make sure the terminals are coated thoroughly to prevent current leakage between terminals.
2. Avoid using coating material containing toluene or xylene. For more information on coating material, please contact us.
3. Switch terminals must be coated thoroughly until the terminals are fully covered.

## 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	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	
Ground terminal		—	—	●	—	—	—	—	—	●	●
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
Automotive use		—	●	●	—	—	—	—	—	—	—
Life Cycle											
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.

- TACT Switch™ Soldering Conditions . . . . . 288
- 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.

■ 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°C to +70°C	-40°C to +90°C	-30°C to +85°C								—	
Automotive use		—	●	—	—	—	●	—	○	—	—	—	
Life Cycle													
Rating (max.) (Resistive load)		50mA 12V DC											
Rating (min.) (Resistive load)		10μA 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.	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°C for 96h	-40 ± 2°C for 96h	-30 ± 2°C for 96h									
	Dry heat	80 ± 2°C for 96h	90 ± 2°C for 96h	80 ± 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		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.

● TACT Switch™ Soldering Conditions . . . . . 288

● 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.
3. ※ 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

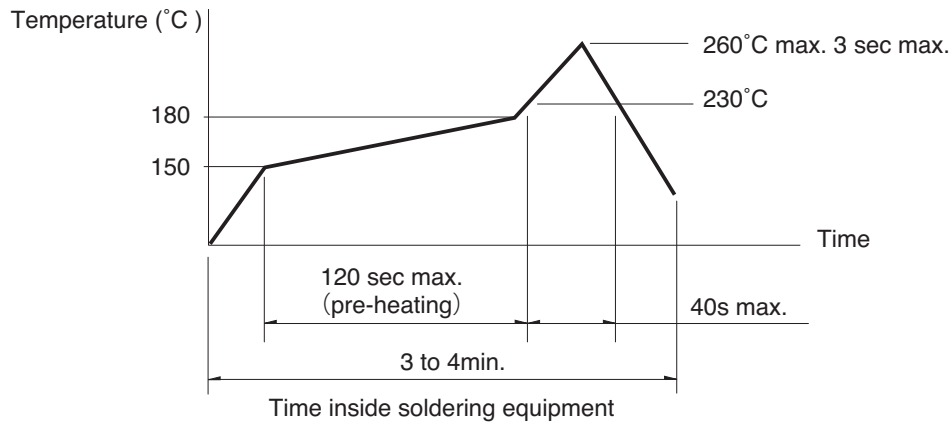
# TACT Switch™ Soldering Conditions

## 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



## 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