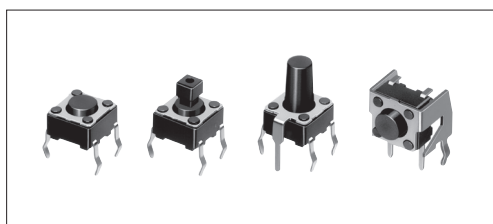


User friendly 6.0×6.0mm type, available in a wide variety.

- Detector
- Push
- Slide
- Rotary
- Encoders
- Power



### Typical Specifications

Items	Specifications
Rating (max.)	50mA 12V DC
Rating (min.)	10μA 1V DC
Initial contact resistance	100mΩ max.
Travel (mm)	0.25

- Dual-in-line Package Type
- TACT Switch™

### 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	
SKHHAJA010	0.98N	Toppush	1,000,000cycles	Black	h=4.3mm	1,000	1,000	1
SKHHALA010	1.57N		500,000cycles	Dark gray				
SKHHAQA010	2.55N		200,000cycles	Red				
SKHHAKA010	0.98N		1,000,000cycles	Black	h=5mm			
SKHHAMA010	1.57N		500,000cycles	Dark gray				
SKHHARA010	2.55N		200,000cycles	Red				
SKHHCQA010	3.53N			Orange				
SKHHCRA010	5.10N			Yellow				
SKHHBVA010	0.98N		1,000,000cycles	Black	h=7mm			
SKHHBWA010	1.57N		500,000cycles	Dark gray				
SKHHBYA010	2.55N		200,000cycles	Red				
SKHHANA010	0.98N		1,000,000cycles	Black	h=9.5mm			
SKHHAPA010	1.57N		500,000cycles	Dark gray				
SKHHBSA010	2.55N		200,000cycles	Red				
SKHHDTA010	0.98N		1,000,000cycles	Black	h=13mm			
SKHHDUA010	1.57N		500,000cycles	Dark gray				
SKHHDHA010	0.98N			Black	h=17mm			
SKHHDJA010	1.57N		300,000cycles	Dark gray				

#### Joint Stem Type

Product No.	Operating force	Operating direction	Operating life (5mA 5V DC)	Stem color	Stem height	Minimum order unit (pcs.)		Drawing No.
						Japan	Export	
SKHHCWA010	0.98N	Toppush	1,000,000 cycles	Black	h=7.3mm	1,000	1,000	2
SKHHDAA010	1.57N		500,000 cycles	Dark gray				
SKHHDGA010	2.55N		200,000 cycles	Red				

**Product Line**

With Ground Terminal Type

Product No.	Operating force	Operating direction	Operating life (5mA 5V DC)	Stem color	Stem height	Minimum order unit (pcs.)		Drawing No.
						Japan	Export	
SKHHPJA010	0.98N	Toppush	1,000,000 cycles	Black	h=4.3mm	1,000	1,000	3
SKHHPLA010	1.57N		500,000 cycles	Dark gray				
SKHHPQA010	2.55N		200,000 cycles	Red				
SKHHPKA010	0.98N		1,000,000 cycles	Black	h=5mm			
SKHHPMA010	1.57N		500,000 cycles	Dark gray				
SKHHPRA010	2.55N		200,000 cycles	Red				
SKHHQVA010	0.98N		1,000,000 cycles	Black	h=7mm			
SKHHQWA010	1.57N		500,000 cycles	Dark gray				
SKHHQYA010	2.55N		200,000 cycles	Red				
SKHHPNA010	0.98N		1,000,000 cycles	Black	h=9.5mm			
SKHHPPA010	1.57N		500,000 cycles	Dark gray				
SKHHQNA010	2.55N		200,000 cycles	Red				

**Sidepush Type**

Product No.	Operating force	Operating direction	Operating life (5mA 5V DC)	Stem color	Stem length	Minimum order unit (pcs.)		Drawing No.
						Japan	Export	
SKHHLMA010	0.98N	Sidepush	1,000,000 cycles	Black	$\ell = 3.85\text{mm}$	1,000	1,000	4
SKHHLNA010	1.57N		500,000 cycles	Dark gray				
SKHHLPA010	2.55N		200,000 cycles	Red				
SKHHLQA010	0.98N		1,000,000 cycles	Black	$\ell = 8.35\text{mm}$			
SKHHLRA010	1.57N		500,000 cycles	Dark gray				
SKHHLSA010	2.55N		200,000 cycles	Red				
SKHHLUA010	0.98N		1,000,000 cycles	Black	$\ell = 5.85\text{mm}$			
SKHHLVA010	1.57N		500,000 cycles	Dark gray				
SKHHLWA010	2.55N		200,000 cycles	Red				
SKHHNHA010	0.98N		500,000 cycles	Black	$\ell = 15.85\text{mm}$			
SKHHNJA010	1.57N		300,000 cycles	Dark gray				
SKHHNKA010	2.55N		200,000 cycles	Red				

**Packing Specifications**

Bulk

Series	Number of packages (pcs.)		Export package measurements (mm)
	1 case / Japan	1 case / export packing	
Other	10,000	30,000	309 × 476 × 347
SKHHDT, SKHHDU SKHHDH, SKHHDJ SKHHNH, SKHHNJ SKHHNK	5,000	15,000	

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line  
Package Type

TACT Switch™

Sharp  
Feeling

Soft  
Feeling

Snap-in  
Type

Surface  
Mount Type


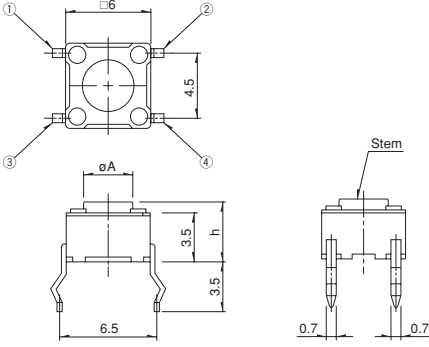
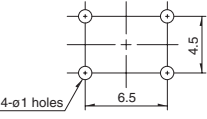

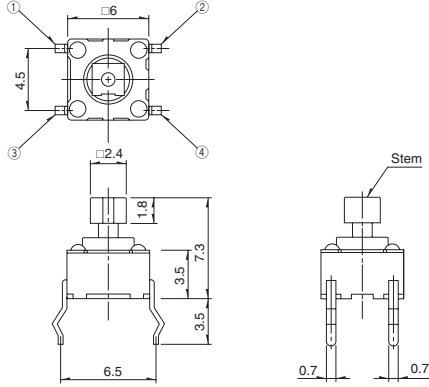
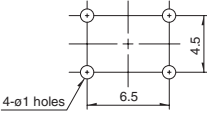

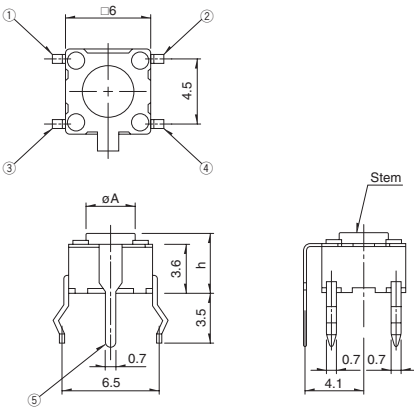
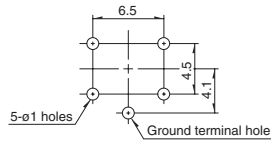
Radial  
Type

Dimensions

Unit:mm

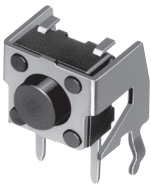
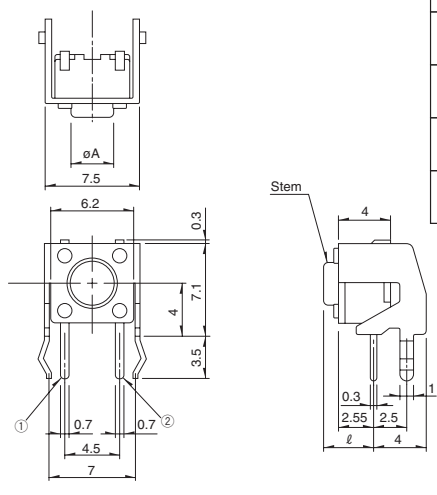
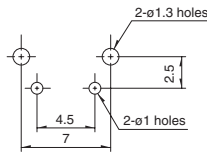
- Detector
- Push
- Slide
- Rotary
- Encoders
- Power
- Dual-in-line Package Type
- TACT Switch™

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

No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)														
1		 <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>h</th> <th>A</th> </tr> </thead> <tbody> <tr><td>4.3</td><td>3.5</td></tr> <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> <tr><td>13</td><td>3</td></tr> <tr><td>17</td><td>3</td></tr> </tbody> </table>	h	A	4.3	3.5	5	3.5	7	3.3	9.5	3	13	3	17	3	
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h	A																
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9.5	3																

**Dimensions**

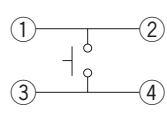
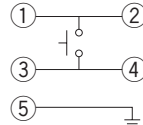
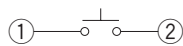
Unit:mm

No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)										
4			<table border="1"> <thead> <tr> <th><math>\ell</math></th> <th>A</th> </tr> </thead> <tbody> <tr> <td>3.85</td> <td>3.5</td> </tr> <tr> <td>5.85</td> <td>3.3</td> </tr> <tr> <td>8.35</td> <td>3</td> </tr> <tr> <td>15.85</td> <td>3</td> </tr> </tbody> </table>	$\ell$	A	3.85	3.5	5.85	3.3	8.35	3	15.85	3
			$\ell$	A									
			3.85	3.5									
			5.85	3.3									
			8.35	3									
15.85	3												
													

**Note**


Please use 1.6mm thick PC boards.

**Circuit Diagram**

Toppush type / Joint stem type	With ground terminal type	Sidepushtype
		

**Product Line of Knobs**

Unit:mm

Applicable model	Dimensions	Variety	
		Color	Model
SKHH		<b>Keytop</b>	
		Red Blue Ivory Black Yellow	SK2AA00410 SK2AA00420 SK2AA00430 SK2AA00440 SK2AA00450

**Note**

The knob will be delivered together with the switch but packed separately.

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

## 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.

- 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.

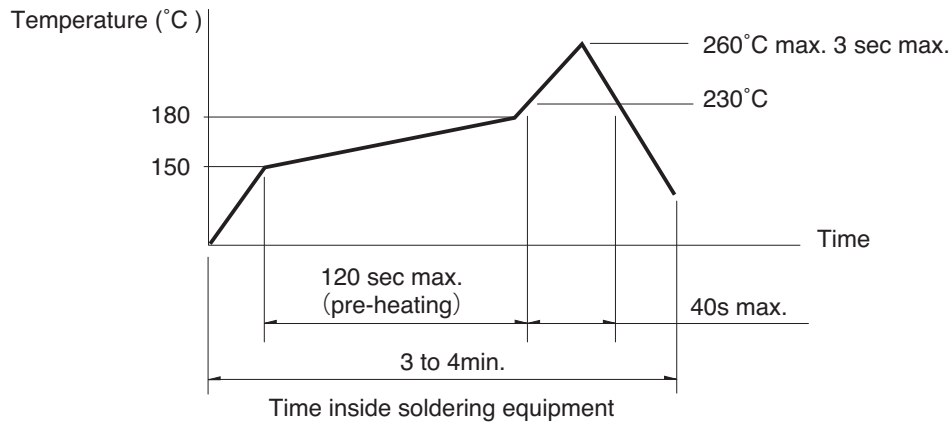
# TACT Switch™ Soldering Conditions

## 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