

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



■ Typical Specifications

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

■ Product Line

Top push 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	Top push	1,000,000 cycles	Black	h=4.3mm	1,000	1,000	1			
SKHHALA010	1.57N		500,000 cycles	Dark gray							
SKHHAQA010	2.55N		200,000 cycles	Red							
SKHHAKA010	0.98N		1,000,000 cycles	Black							
SKHHAMA010	1.57N		500,000 cycles	Dark gray	h=5mm						
SKHHARA010	2.55N			Red							
SKHHCQA010	3.53N		200,000 cycles	Orange							
SKHHCRA010	5.10N			Yellow							
SKHHBVA010	0.98N		1,000,000 cycles	Black	h=7mm						
SKHHBWA010	1.57N		500,000 cycles	Dark gray							
SKHHBYA010	2.55N		200,000 cycles	Red							
SKHHANA010	0.98N		1,000,000 cycles	Black	h=9.5mm						
SKHHAPA010	1.57N		500,000 cycles	Dark gray							
SKHHBSA010	2.55N		200,000 cycles	Red							
SKHHDTA010	0.98N		1,000,000 cycles	Black	h=13mm						
SKHHDUA010	1.57N			Dark gray							
SKHHDHDA010	0.98N		500,000 cycles	Black	h=17mm						
SKHHDJ010	1.57N		300,000 cycles	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	Top push	1,000,000 cycles	Black	h=7.3mm	1,000	1,000	2
SKHHDA010	1.57N		500,000 cycles	Dark gray				
SKHHDGA010	2.55N		200,000 cycles	Red				

Refer to P.265 for soldering conditions.

■ 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	Top push	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						
SKHHPMMA010	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							

Side push 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	Side push	1,000,000 cycles	Black	l=3.85mm	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	l=8.35mm						
SKHHLRA010	1.57N		500,000 cycles	Dark gray							
SKHHLSA010	2.55N		200,000 cycles	Red							
SKHHLU010	0.98N		1,000,000 cycles	Black	l=5.85mm						
SKHHLV010	1.57N		500,000 cycles	Dark gray							
SKHHLW010	2.55N		200,000 cycles	Red							
SKHHNHA010	0.98N		500,000 cycles	Black	l=15.85mm						
SKHHNJ010	1.57N		300,000 cycles	Dark gray							
SKHHNK010	2.55N		200,000 cycles	Red							

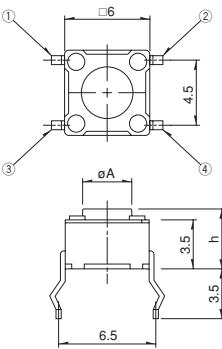
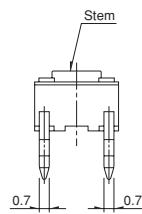
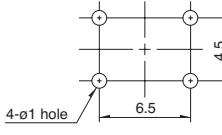
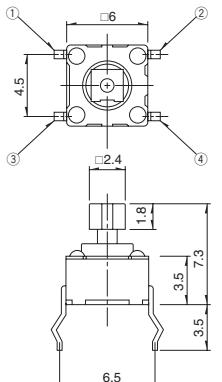
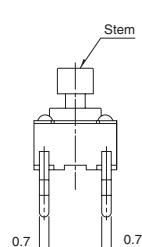
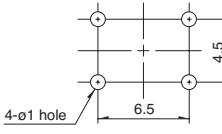
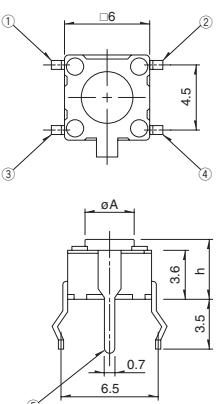
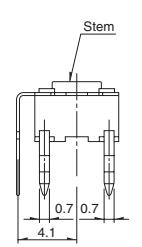
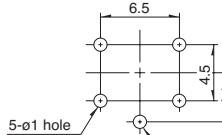
■ Packing Specifications

Bulk

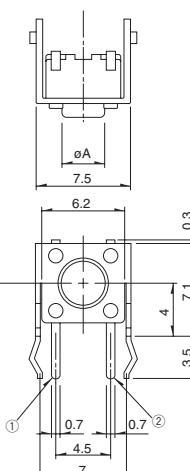
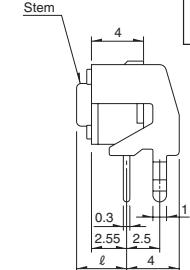
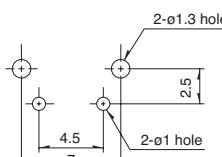
Product No.	Number of packages (pcs.)		Export package measurements (mm)
	1 case /Japan	1 case /export packing	
Other	10,000	30,000	
SKHHDT, SKHHDU SKHHDH, SKHHDJ SKHHNH, SKHHNJ SKHHNK	5,000	15,000	309×476×347

Dimensions

Unit:mm

No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)													
			h	A												
1	Top push type	  	<table border="1"> <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> </table>	4.3	3.5	5	3.5	7	3.3	9.5	3	13	3	17	3	
4.3	3.5															
5	3.5															
7	3.3															
9.5	3															
13	3															
17	3															
2	Joint stem type	  	<table border="1"> <tr> <td>4.5</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> </table>	4.5	3.5	5	3.5	7	3.3	9.5	3					
4.5	3.5															
5	3.5															
7	3.3															
9.5	3															
3	With ground terminal type	  	<table border="1"> <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> </table>	4.3	3.5	5	3.5	7	3.3	9.5	3					
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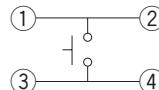
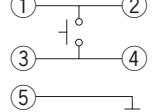
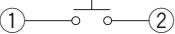
■ Dimensions

No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)									
			ℓ	A								
4	Side push type	  	<table border="1"> <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> </table>	3.85	3.5	5.85	3.3	8.35	3	15.85	3	
3.85	3.5											
5.85	3.3											
8.35	3											
15.85	3											
				Unit:mm								

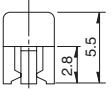
Note

Please use 1.6mm thick PC boards.

■ Circuit Diagram

Top push type / Joint stem type	With ground terminal type	Side push type
		

■ Product Line of Knobs

Applicable model	Dimensions	Variety	
		Color	Model
SKHH	  	Keytop	

Note

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

Type		Sharp Feeling Type						
		Snap-in						
Series		SKHL	SKHH	SKHW	SKQJ	SKQB	SKQE	SKHC
Photo								
Features		—	—	—	—	—	Long-life	—
Water-proof		—	—	—	—	●	—	—
Dust-proof		—	—	●	●	●	●	—
IP standard		—	—	—	—	—	—	—
Operating direction	Top push	●	●	●	●	●	●	●
	Side push	—	—	—	—	—	—	—
Dimensions (mm)	W	6	□6		□6.6	□10	□12	
	D	3.5			—	—		
	H	4.3/5	See the relevant pages for respective product descriptions	4.3/5	5	5/13/23.2	See the relevant pages for respective product descriptions	
Operation force coverage	1N max.							
	1N to 2N							
	2N to 3N							
	3N to 4N							
	4N to 5N							
Travel (mm)		0.25		0.3	0.25	0.3		
Ground terminal		—	●	—	—	—	—	—
Operating temperature range		-40°C to +90°C			-20°C to +70°C	-40°C to +90°C		-40°C to +85°C
Automotive use		●	●	—	—	●	—	—
Life Cycle								
Electrical performance	Rating (max.) (Resistive load)	50mA 12V DC						
	Rating (min.) (Resistive load)	10µA 1V DC						
Insulation resistance		100MΩ min. 100V DC 1min.						
Voltage proof		250V AC 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 2 hours respectively						
	Lifetime	Shall be in accordance with individual specifications.						
Environmental performance	Cold	-40°C 96h		-30°C 96h	-40°C 96h			
	Dry heat	90°C 96h		80°C 96h	90°C 96h			
	Damp heat	60°C, 90 to 95%RH 96h			60°C, 90 to 95%RH 1,000h	60°C, 90 to 95%RH 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.

TACT Switch™ Soldering Conditions	265
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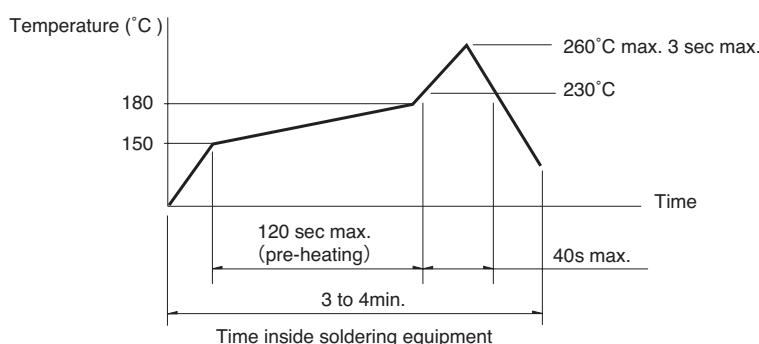
Notes

1. The automotive operating temperature range to be individually discussed upon request.
2. ● Indicates applicability to all products in the series.

Condition for Reflow

Available for Surface Mount Type.

1. Temperature measurement: Thermocouple ϕ 0.1 to 0.2 CA (K) or CC (T) at solder joints (copper foil surface).
A heat resistive tape should be used to fix thermocouple.
2. 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. Prevent flux penetration from the top side of the TACT Switch™.
2. Switch terminals and a PC board should not be coated with flux prior to soldering.
3. The second soldering should be done after the switch is stable with normal temperature.
4. Use the flux with a specific gravity of min 0.81.
(EC-19S-8 by TAMURA Corporation, or equivalents.)

Manual Soldering

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.

SKTD, SKTG, SKQJ, SKQK, SKEG Series

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