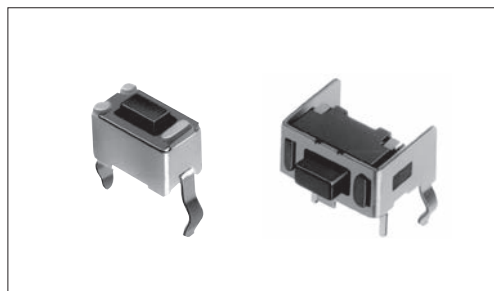


Switch contributing to high-density mounting,
available with top or side push operation



■ Typical Specifications



Items	Specifications
Rating (max.)	50mA 12V DC
Rating (min.)	10μA 1V DC
Initial contact resistance	500mΩ 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	
SKHLAAA010	0.98N	Top push	50,000 cycles	Black	h=4.3mm	1,000	1,000	1
SKHLACA010	1.57N			Dark gray				
SKHLAJA010	2.55N		30,000 cycles	Red				
SKHLABA010	0.98N		50,000 cycles	Black	h=5mm			
SKHLADA010	1.57N			Dark gray				
SKHLAKA010	2.55N		30,000 cycles	Red				

Side push type

Product No.	Operating force	Operating direction	Operating life (5mA 5V DC)	Stem color	Terminal length	Minimum order unit (pcs.)		Drawing No.
						Japan	Export	
SKHLLAA010	0.98N	Side push	50,000 cycles	Black	ℓ=3.5mm (PC board t : 1.6)	1,000	1,000	2
SKHLLBA010	1.57N			Dark gray				
SKHLLFA010	2.55N		30,000 cycles	Red				
SKHLLCA010	0.98N		50,000 cycles	Black	ℓ=2.5mm (PC board t : 1.0)			
SKHLLDA010	1.57N			Dark gray				

■ Packing Specifications

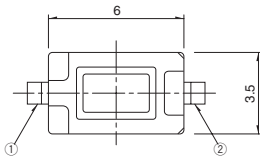
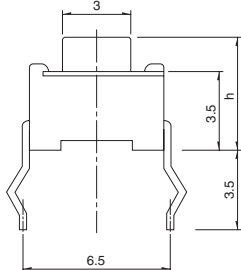
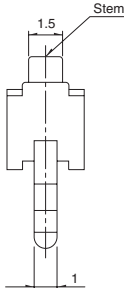
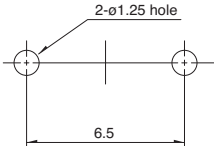
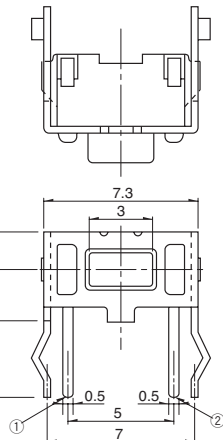
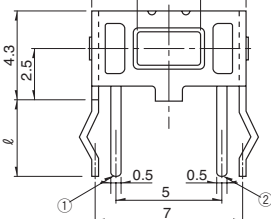
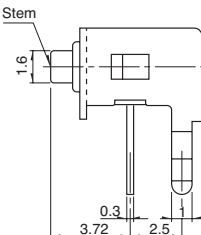
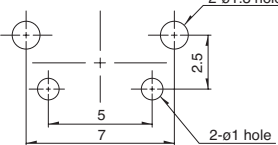
Bulk

Number of packages (pcs.)		Export package measurements (mm)
1 case / Japan	1 case / export packing	
10,000	30,000	309×476×347

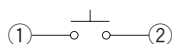
Refer to P.259 for soldering conditions.

■ Dimensions

Unit:mm

No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)						
1		   <table><tr><td>h</td></tr><tr><td>4.3</td></tr><tr><td>5</td></tr></table> 	h	4.3	5				
h									
4.3									
5									
2		   <table><tr><th>ℓ</th><th>PC board</th></tr><tr><td>2.5</td><td>t 1.0</td></tr><tr><td>3.5</td><td>t 1.6</td></tr></table> 	ℓ	PC board	2.5	t 1.0	3.5	t 1.6	
ℓ	PC board								
2.5	t 1.0								
3.5	t 1.6								

■ Circuit Diagram



TACT Switch™

List of Varieties

TACT Switch™

Sharp Feeling

Soft Feeling

Snap-in Type

Surface Mount Type

Radial Type

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	to 1N							
	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℃ to +90℃			-20℃ to 70℃	-40℃ to +90℃		-40℃ to +85℃
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℃ 96h			-30℃ 96h	-40℃ 96h		
	Dry heat	90℃ 96h			80℃ 96h	90℃ 96h		
	Damp heat	60℃, 90 to 95%RH 96h				60℃, 90 to 95%RH 1,000h	60℃, 90 to 95%RH 96h	
Page		193	195	199	200	202	204	206

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 259
TACT Switch™ Cautions 260

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.

Type		Sharp Feeling Type						
		Snap-in				Radial		
Series		SKHL	SKHH	SKQJ	SKQB	SKRG	SKQK	SKRC
Photo								
Features		—	—	—	—	Round terminal type	—	Round terminal type
Water-proof		—	—	—	●	—	—	●
Dust-proof		—	—	●	●	—	—	●
IP standard		—	—	—	—	—	—	—
Operating direction	Top push	—	—	—	—	●	●	●
	Side push	●	●	●	●	—	—	—
Dimensions (mm)	W	7.3	7.5	7.5	11.5	φ6.2	□6.6	φ9
	D	7.22	7.85	7.85	11.9			
	H	4.3	7.4	7.3	11.3	See the relevant pages for respective product descriptions		5
Operation force coverage	to 1N							
	1N to 2N							
	2N to 3N							
	3N to 4N							
	4N to 5N							
Travel (mm)		0.25			0.3	0.25		
Ground terminal		●	●	—	—	—	—	—
Operating temperature range		-40℃ to +90℃		-20℃ to +70℃	-40℃ to 95℃	-40℃ to +90℃	-20℃ to +70℃	-30℃ to +85℃
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℃ 96h		-30℃ 96h	-40℃ 96h		-30℃ 96h	-40℃ 96h
	Dry heat	90℃ 96h		80℃ 96h	90℃ 96h		80℃ 96h	90℃ 96h
	Damp heat	60℃, 90 to 95%RH 96h			60℃, 90 to 95%RH 1,000h	60℃, 90 to 95%RH 96h		60℃, 90 to 95%RH 1,000h
Page		193	195	200	202	246	248	249

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 259
TACT Switch™ Cautions 260

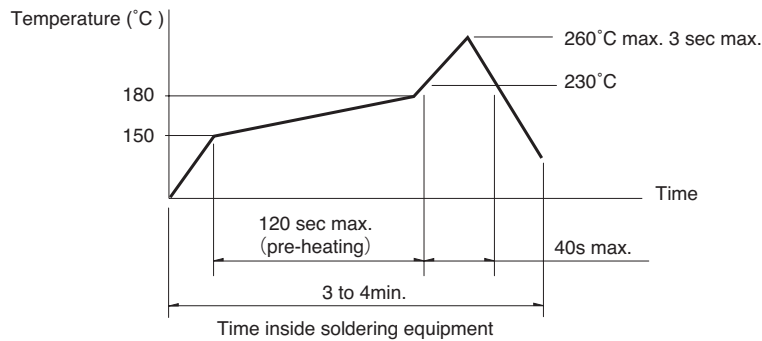
Notes

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.

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.

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.

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.)