

Switch with soft operating feel available also as joint stem and sidepush types



Typical Specifications

Items	Specifications
Rating (max.)	5mA 12V DC
Rating (min.)	10μA 1V DC
Initial contact resistance	1kΩ max.
Travel (mm)	1

Product Line

Toppush Type

Product No.	Operating force	Operating direction	Operating life (1mA 5V DC)	Stem color	Stem	Minimum order unit (pcs.)		Drawing No.
						Japan	Export	
SKEGACA010	0.78N	Toppush	100,000 cycles	Ivory	Joint stem	1,000	1,000	1
SKEGAEA010	1.96N			Dark gray				
SKEGADA010	0.78N			Ivory	Flat stem			2
SKEGAFA010	1.96N			Dark gray				

Sidepush Type

Product No.	Operating force	Operating direction	Operating life (1mA 5V DC)	Stem color	Minimum order unit (pcs.)		Drawing No.
					Japan	Export	
SKEGLAA010	0.78N	Sidepush	50,000 cycles	Black	1,000	1,000	3
SKEGLBA010	1.96N			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

Dimensions

Unit:mm

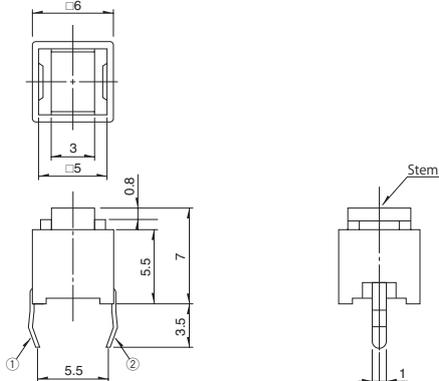
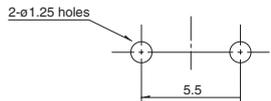
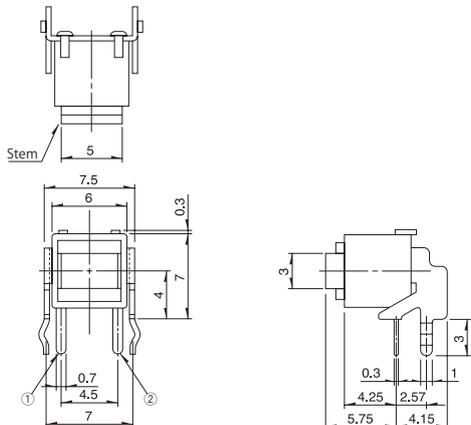
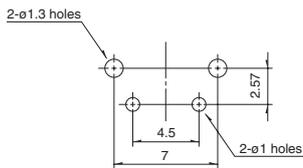
No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)
1			

- 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

No.	Photo	Style	PC board mounting hole dimensions (Viewed from switch mounting face)
2			
3			

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line  
Package Type

TACT Switch™

Sharp  
Feeling

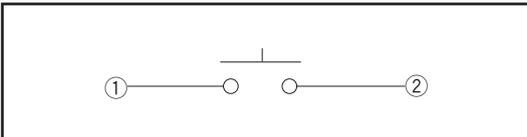
Soft  
Feeling

Snap-in  
Type

Surface  
Mount Type

Radial  
Type

## Circuit Diagram

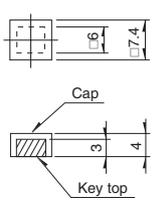
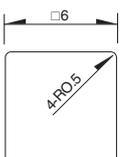


## Note

Please use 1.6mm thick PC boards. (For horizontal type, 1.0mm)

## Product Line of Knobs

Unit:mm

Applicable model	Dimensions	Variety		Label dimensions (Unit:mm)	
		Color	Model		
SKEG  Applicable to joint stem type	 	Cap		 Thickness 0.1	
		Clear	SK2AA00540		
		Keytop			Keytop + Cap
		Red Blue Ivory Black Yellow	SK2AA00310 SK2AA00320 SK2AA00330 SK2AA00340 SK2AA00350		SK2AA00360 SK2AA00370 SK2AA00380 SK2AA00390 SK2AA00400

## Notes

1. The knob will be delivered together with the switch but packed separately.
2. The label is not included.

## 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	●	●	●	●	—	●	●	●	●	●	●
Dual-in-line Package Type	Sidepush	—	—	—	—	●	—	—	—	—	—	—
	Dimensions (mm)											
TACT Switch™	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	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕
Travel (mm)	4N~5N	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕	↕
	0.25	0.25			1			※1	1.3		1	1.3
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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### 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.

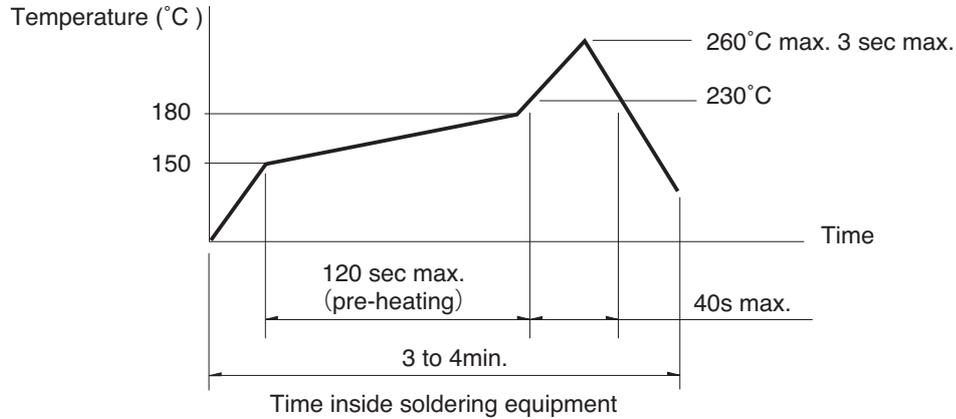
# TACT Switch™ Soldering Conditions

## 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
<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