

# TACT Switch™ Long-travel with Low Contact Resistance (Surface Mount Type)

## SKPN Series



1.5mm long-travel with metal contact achieve low-contact resistance.

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

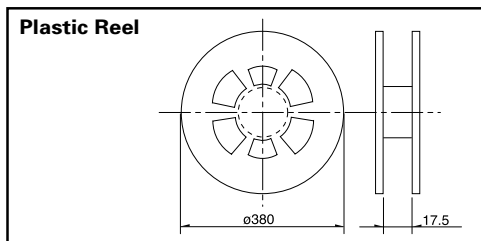


### Product Line

Product No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Rating (min.)	Operating life (5mA 5V DC)	Initial contact resistance	Minimum order unit (pcs.)
SKPNAAE010	1.96N	Vertical	1.5	50mA 16V DC	10μ A 1V DC	50,000cycles	100m max.	1,100
SKPNABE010	2.45N					100,000cycles		

### Specification of Embossed Taping Package (Taping Packaging for Auto-insertion)

Reel Size Unit:mm



Number of packages ( pcs. )			Tape width ( mm )
1 reel	1 case /Japan	1 case /export packing	
1,100	8,800	8,800	16

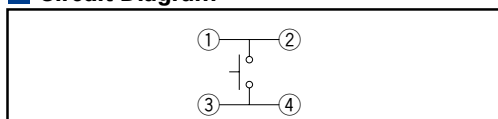
- Sharp Feeling
- Soft Feeling**
- Snap-in Type
- Surface Mount Type
- Radial Type

### Dimensions

Unit:mm

Style	PC board land dimensions ( Viewed from switch mounting face )

### Circuit Diagram













### Note

1. For 330mm diameter reel requirements, please contact us.
2. Please place purchase orders for taping products per minimum order unit (1 reel or a case).

Refer to P.306 for soldering conditions.

# List of Varieties

## Soft Feeling Type

Series		SKEG	SKPE	SKEG	SKEY	SKPF	SKPM	SKPN	SKPG	SKPL	SKPD
Photo											
Type		Snap-in					Surface mount			Radial	
Features					Horizontal type	High operation force and long stroke	Low contact resistance		Round terminal and low contact resistance		
Operating direction	Vertical										
	Horizontal										
Dimensions (mm)	W	6	6.6	7.5	7.8	8	5.9	6	6.6	φ6.45	7.8
	D		6.3	9.9		9	6	6.7	6.3		
	H	7	5	7.3	5	10	5	7	5		
Contact		Carbon					Silver		Carbon	Silver	Carbon
Operation force coverage		1N	↕	↕	↕	↕	↕	↕	↕	↕	↕
		5N									
Ground terminal											
Operating temperature range		-20 to +70 SKEG									
		-40 to +90									
Electrical performance	Insulation resistance	100M min. 100V DC SKEY/PD : 50M min. 100V DC									
	Voltage proof	250V AC for 1min. SKPN : 200V AC for 1min. SKEY/PD : 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 for 96h									
	Dry heat	80 ± 2 for 96h									
	Damp heat	60 ± 2 , 90 to 95%RH for 96h									
Page		296	298	296	299	300	301	302	303	304	305

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 .....306  
 TACT Switch™ Cautions .....307  
 Product Line of Knob for TACT Switch™ .....308

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

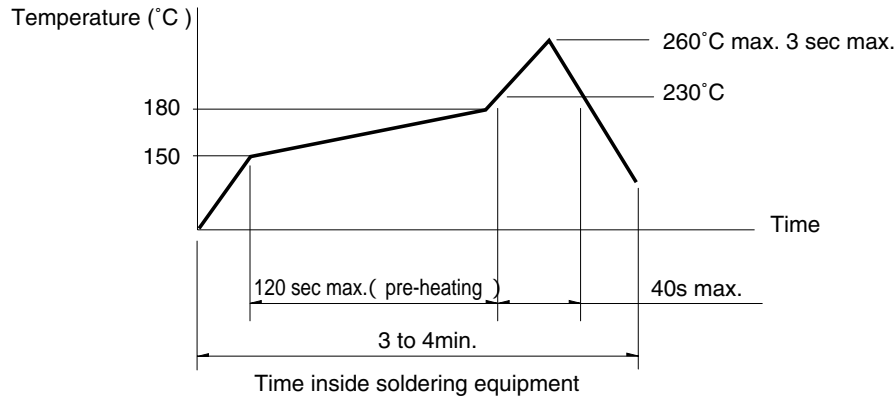
- Sharp Feeling
- Soft Feeling
- Snap-in Type
- Surface Mount Type
- Radial Type

## 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 CA(K) or CC(T) at solder joints( copper foil surface ). A heat resistive tape should be used to fix thermocouple.
3. Temperature profile



### Note

1. The above temperature shall be measured on the mounting surface of a PC board. 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.

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line  
Package Type

TACT Switch™

Custom-  
Products

Sharp  
Feeling

Soft  
Feeling

Snap-in  
Type

Surface  
Mount Type

Radial  
Type

### Conditions for Auto-dip

Available for Snap-in Type and Radial Type

( Except SKHJ, SKHL, SKQJ, SKQK, SKEG series )

Items	Condition
Flux built-up	Mounting surface should not be exposed to fluk
Preheating temperature	Ambient temperature of the soldered surface of PC board. 100 max.
Preheating time	60s max.
Soldering temperature	260 max.
Duration of immersion	5s max.
Number of soldering	2times max.

### Manual Soldering ( Except SKRT Series )

Items	Condition
Soldering temperature	350 max.
Duration of soldering	3s max.
Capacity of soldering iron	60W 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. )