



0.9mm low-profile, double action type.

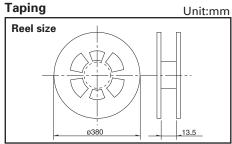
# Duube Action

Typical Specifications					
Items	Specifications				
Rating (max.)	50mA 12V DC	Detector			
Rating (min.)	10µA 1V DC	Push			
Initial contact resistance	100mΩ max.	Slide			
Travel (mm)	1st 0.25 All 0.4	Rotary			

# Product Line

Product No. Operating force		Operating direction	Operating life	Guide bosses	Minimum order unit (pcs.)		
Product No.	Product No. Operating force		(5mA 5V DC)		Japan	Export	
SKRNPAE010	1st 0.78N			Without	5.000	5 000	
SKRNPBE010	2nd 2.45N		00.000	With			
SKRNPCE010	1st 0.78N 2nd 1.57N	Tappych	30,000cycles	vvitn			
SKRNPDE010		2nd 1.57N	2nd 1.57N Toppush		Without	5,000	5,000
SKRNPEE010	1st 0.59N	1st 0.59N	1st 0.59N	100.000 avalas	Without		
SKRNPME010	2nd 1.57N		100,000cycles	With			

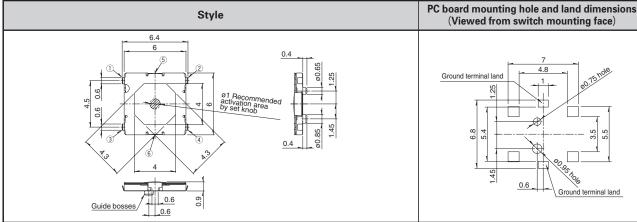
# Packing Specifications



Numb	er of packages	-	Export package		
1 reel	1 case / Japan	1 case / export packing	Tape width (mm)	measurements (mm)	
5,000	50,000	50,000	12	401 × 401 × 214	

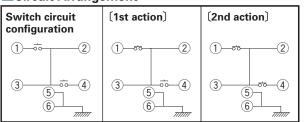
Note For reels of 330mm diameter, please inquire.

## Dimensions



ALPS

## Circuit Arrangement





Encoders

Power Dual-in-line Package Type

Radial Type

Unit:mm

# **TACT Switch**<sup>™</sup>

# List of Varieties

	Туре	-	Sharp Feeling Type Surface Mount											
	Series	5	SKRN	SKSE	SKSV	SKSW	SKSF	SKSM	SKSG	SKRK	SKRP	SKQM	SKQY	SKS
	Photo	<	Ô	-07	NEW	NEW	۲	NEW					۷	NEV
	Features		Double action		-	Compact size Low-profile			Compa Low-p		High operation force Compact size	Compact size		Midd trave
,	Water-proof		_	_	•	•	_	•		_			_	•
	Dust-proof		_		•	•	0	•			_		0	•
Operat	Toppus	h	•	_	•	•	•	•	•	•	•	•	٠	•
directi		h	_	•	_	_	_	_	_	_	_	_	_	_
	W		□6	5.9	2.8	3.0	2.8	3.4	3	3.9	4.2	6	6.1	5.3
Dimensi (mm	D			2.87	1.9	2	2.4	2.9	2.7	2.9	3.2	3.5	3.7	5.4
	Н	~1N	0.9	3	0.5	0.58	0.65	0.7	1.4	1.5 <b>1</b>	2.5	4.3	2.5	3.8
Operat	ion <sup>1N</sup>	~1N  ~2N			1	\$	\$	\$	1	Ļ	1			
force		I~3N I~4N	*	×	+						L	¥		\$
oovera	-	I~5N							•					•
	Travel (mm)		*	<b>«</b>	0.12	0.13	C	.1	0.12	0.13	0.2	0.:	25	0.7
Gr	ound terminal		•	٠	_	_	_	_	•	—	_	—	•	_
Opera	iting temperatu range	ire						- 30℃ to	o + 85℃					
Αι	tomotive use		_		_	_	_	_	0	_	•	•	•	
	Life Cycle								*3	2	*3		2	×
	lating (max.) esistive load)				1	50mA <sup>-</sup>	12V DC	1			50mA 16V DC	50mA 1	2V DC	50m 16V I
	Rating (min.) esistive load)							10 <i>µ</i> A	1V DC					
Electrical	Insulation resistance						100M	Ω min. 10	0V DC fo	r 1min.				
performance	Voltage pro		250V AC for 1min. 250V AC 250V AC					V AC for 1	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											
Durability	Lifetime		Shall be in accordance with individual specifications.											
	Cold		− 30±2°C for 96h											
Environmental performance	Dry heat		80±2°C for 96h											
	Damp hea	t	60±2°C , 90 to 95%RH for 96h											
	Page		255	256	257	258	259	260	261	262	263	264	265	26
							W : V D : D H : H	Vidth. Th epth. The	e most o e most ou	uter dime iter dime	ension ex	cluding t	erminal perminal p	ortio

Notes

1. The automotive operating temperature range to be individually discussed upon request.

2. • indicates applicability to all products in the series, while  $\bigcirc$  indicates applicability to some products in the series.

3. X See the relevant pages for respective product descriptions



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# TACT Switch<sup>™</sup> Soldering Conditions

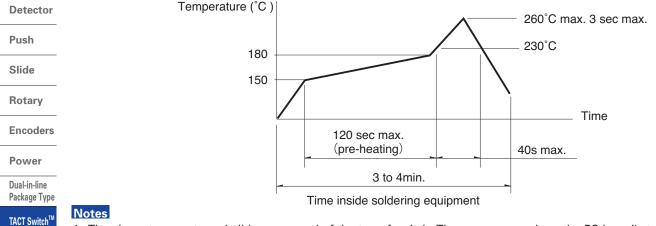
#### Condition for Reflow

#### Available for Surface Mount Type.

- 1. Heating method: Double heating method with infrared heater.
- 2. Temperature measurement: Thermocouple 0.1 to 0.2  $\phi$  CA (K) or CC (T) at solder joints (copper foil surface).

A heat resistive tape should be used to fix thermocouple.

#### 3. Temperature profile



# 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

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

#### SKHH、SKPD Series

ltems	Condition
Flux built-up	Mounting surface should not be exposed to fluk
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 fluk
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. Consult with us for availability of TACT Switch<sup>™</sup> washing.
- 2. Prevent flux penetration from the top side of the TACT Switch<sup>TM</sup>.
- 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
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.			

#### SKQJ、SKQK、SKEG Series

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



Sharp Feeling Soft

Feeling Snap-in Type Surface Mount Type

Radial Type