

0.4mm Height Low-profile (Surface Mount Type)



4.5×4.5mm with height of 0.4mm. Compact & low-profile.



Typical Specifications

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

Detector Push

Slide

Rotary

Encoders

Power

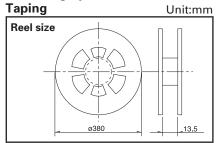
Dual-in-line Package Type

TACT Switch™

Product Line

I	Product No.	Operating force	Operating direction	Travel (mm)	Operating life	Minimum ord	ler unit (pcs.)
ı	Product No.	Operating force	Operating direction	Travel (IIIII)	(5mA 5V DC)	Japan	Export
	SKRMAAE010	1.57N	Toppush	0.15	500,000cycles	10.000	40.000
	SKRMABE010	2.55N	Toppush	0.2	100,000cycles	10,000	10,000

■ Packing Specifications



Numk	per of packages	(pcs.)		Export package
1 reel	1 case / Japan	1 case / export packing	Tape width (mm)	measurements (mm)
10,000	100,000	100,000	12	401 × 401 × 214

Note

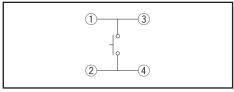
For reels of 330mm diameter, please inquire.

Dimensions Unit:mm

Style	PC board land dimensions (Viewed from switch mounting face)
o0.8 Recommended activation area by set knob. 4.5	2.9 4.6

ALPS

Circuit Diagram



Sharp Feeling Soft

Feeling Snap-in Type

Surface Mount Type

Radial Type

■ List of Varieties

Series							Sharp	Feeling	Туре				
Photo		Туре	Sna	p–in		Surface Mount							
Note		Series	SKQJ	SKQB	SKSH	SKRW	SKRM	SKRB	SKRR	SKQG	SKTC	SKSK	SKSD
Water-proof		Photo				O				•		Q.	
Dust-proof		Features	_	_		Low-	profile				Double action		
Toppush Gidepush	W	ater-proof	_	•	_	0	_	_	_	_	•	_	_
Dimensions (mm)	С	Oust-proof	•	•	0	0	0	0	0	0	•	_	_
Sidepush	Operatin	Toppush	_	_	•	•	•	•	•	•	•	•	•
Dimensions (mm)		n	•	•	_	_	_	_	_	_	_	_	_
D 7,85 11.9 2.9 7 2.2 3.2 3.9 H 7,3 11.3 0.35 0.4 0.55 0.6 0.8 0.62 0.6 Operation force coverage 2N-3N		w	7.5	11.5	3.3				7.5		3.4	3.5	4.1
H 7.3 11.3 0.35 0.4 0.55 0.6 0.8 0.62 0.6		ns D	7.85	11.9	2.9	1 ⊔3./	□4.5	<u></u> 4.8	7	∐5.2	2.2	3.2	3.9
N - 2N 2N - 3N - 4N N -	(11111)	Н	7.3	11.3	0.	35	0.4	0.55	0.6	0.8	0.62	0	.6
Travel (mm) 0.25 0.3 0.15 0.15/0.2 0.25			1							1			
Travel (mm) 0.25 0.3 0.15 0.15/0.2 0.25		/II	-		I		<u> </u>	T				**	
Ground terminal -		e 3N~4N								———		*	
Operating temperature range -20°C to+90°C -30°C to +85°C -30°C to +85°C to +85°C -30°C to +85°C	т	ravel (mm)	0.25	0.3	0.	15	0.15	/0.2	0.:	25		*	
Trange To+70°C To+90°C To+90°C To+85°C To+8	Gro	und terminal	_	_	_	_	_	_	_	_	_	•	•
Life Cycle SomA 12V DC Life Cycle SomA 12V DC Life Cycle SomA 12V DC Life Cycle SomA 12V DC Dow AC To Cycle Life Cycle Li					-30°C to +85°C —								
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Aut	omotive use	_	•	_	_		•	_	0	_	_	_
	ı	ife Cycle	*3	*3	* 2	* 2	* 2	* 2	* 2	*3	* 2	* 2	* 2
							50	mA 12V I	DC				
Electrical performanceresistance100MΩ min. 100V DC for 1min.Voltage proof $250V AC for 1min.$ $100V AC for 1min.$ $100V AC for 1min.$ $100V AC for 1min.$ $100V AC for 1min.$ UrabilityVibration10 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 respectivelyShall be in accordance with individual specifications.Cold $-30 \pm 2^{\circ}C$ for 96h $-30 \pm 2^{\circ}C$ for 96hDry heat $80 \pm 2^{\circ}C$ for 96h $80 \pm 2^{\circ}C$ for 96hDamp heat $80 \pm 2^{\circ}C$ for 96h $80 \pm 2^{\circ}C$ for 96hDamp heat $60 \pm 2^{\circ}C$, $60 \pm 2^{\circ}C$, $90 \pm 2^{$							10	Ο μ Α 1V D	С				
performanceVoltage proof250V AC for 1min.100V AC for 1min.250V AC for 1min.100V AC for 1min.100V AC for 1min.DurabilityVibration10 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 respectivelyLifetimeShall be in accordance with individual specifications.Environmental performanceCold $-30 \pm 2^{\circ}C$ for 96h $-40 \pm 2^{\circ}C$ for 96hDry heat $80 \pm 2^{\circ}C$ for 96h $80 \pm 2^{\circ}C$ for 96hDamp heat $60 \pm 2^{\circ}C$, $90 \pm 2^{\circ}C$, for 96hDamp heat $60 \pm 2^{\circ}C$, $90 \pm 2^{\circ}C$,	Electrical						100MΩ mi	n. 100V D	C for 1min				
Durability Lifetime Cold $-30\pm2^{\circ}C$ for 96h Cold $-30\pm2^{\circ}C$ for 96h Dry heat $80\pm2^{\circ}C$ for 96h Damp heat Finance Damp heat In the 3 direction of X, Y and Z for 2hours respectively Shall be in accordance with individual specifications. $-30\pm2^{\circ}C$ for 96h $-30\pm2^{\circ}C$ for 96h $80\pm2^{\circ}C$ for 96h $80\pm2^{\circ}C$ for 96h $80\pm2^{\circ}C$ for 96h		Voltage proof								V AC for 1	min.		
LifetimeShall be in accordance with individual specifications.Environmental performanceCold $-30 \pm 2^{\circ}C$ for 96h $-40 \pm 2^{\circ}C$ for 96hDry heat $80 \pm 2^{\circ}C$ for 96h $80 \pm 2^{\circ}C$ for 96hDamp heat $60 \pm 2^{\circ}C$, $90 \pm 2^{\circ}$		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											
Environmental performance Dry heat $80 \pm 2^{\circ}$ C $90 \pm 2^{\circ}$ C $60 \pm 2^{\circ}$ C $60 \pm 2^{\circ}$ C $60 \pm 2^{\circ}$ C $90 $	Durability -	Lifetime			(Shall be in	accordanc	e with ind	lividual spe	ecifications	S.		
performance Dry heat for 96h for 96h $\frac{80\pm2\text{C}}{00\pm2\text{C}}$ for 96h $\frac{80\pm2\text{C}}{00\pm2\text{C}}$ for 96h $\frac{60\pm2\text{C}}{00\pm2\text{C}}$ go to 95%RH for 96h $\frac{60\pm2\text{C}}{00\pm2\text{C}}$ go to 95%RH for 96h		Cold						-30	0±2℃ for	96h			
Damp heat 90 to 95%RH 90 to 95%RH 60±2°C, 90 to 95%RH for 96h		Dry heat											
		Damp heat	90 to 95%RH	90 to 95%RH	%RH│ 60±2℃, 90 to 95%RH for 96h								
Page 237 239 245 246 247 248 249 250 252 253 254		Page			245	246	247	248	249	250	252	253	254

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, while O indicates applicability to some products in the series.
- 3. \times See the relevant pages for respective product descriptions



Detector

Push

Slide

Rotary **Encoders**

Power

Dual-in-line Package Type

TACT Switch™

Sharp Feeling Soft **Feeling** Snap-in Type

Radial Type

Surface **Mount Type**

TACT Switch™ Soldering Conditions

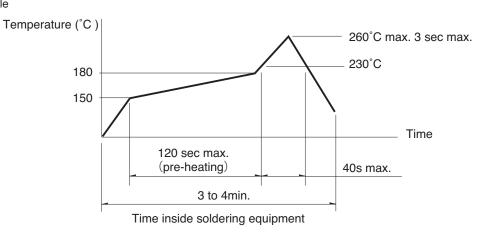
Condition for Reflow

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



Detector

Push

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TACT Switch™

Sharp Feeling Soft

Feeling Snap-in Type Surface Mount Type

Radial Type

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 fluk
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 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.

SKOJ. SKOK. SKEG Series

SNQJ. SNQN. SNEG 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℃ max.			
Duration of immersion	5s max.			
Number of soldering	2times max.			

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.

Notes

- 1. Consult with us for availability of TACT Switch[™] washing.
- 2. Prevent flux penetration from the top side of the TACT Switch $^{\text{TM}}$.
- 3. Switch terminals and a PC board should not be coated with flux prior to soldering.
- 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.)