# TACT Switch™ 4.5mm Square Compact (Snap-in Type)

#### **SKHR** Series



### Compact snap-in type improves high density mounting.

**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

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#### Product Line

1 Todact Line										
Product No.	Operating force	Operating direction	Travel (mm)	Rating (max.)	Rating (min.)	Operating life (5mA 5V DC)	Initial contact resistance	Stem color	Minimum order unit (pcs.)	
SKHRAAA010	0.98N					50,000cycles		Black		
SKHRABA010	1.57N	Vertical	0.25	50mA 10 \( \mu \) A 12 V DC 1 V DC		30,000cycles	100m Ω max.	Dark gray	1,000	
SKHRAHA010	2.55N					50,000cycles		Red		

#### Packing Specifications

#### Bulk

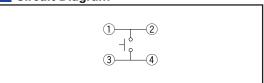
Number of pa	Export package measurements		
1 case /Japan	1 case /export packing	(mm)	
20,000	60,000	309 × 476 × 347	

#### Dimensions

Unit:mm

	Style	PC board mounting hole dimensions (Viewed from switch mounting face)
3 02.5 4 8 8 8 8 5 5 5 5 5 5 5 5 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	0.7 0.7	4-ø1 holes / _ 5 _

#### Circuit Diagram



#### **Notes**

- Please use 1.6mm thick PC boards.
   Please place purchase orders per minimum order unit N (integer).

Refer to P.334 for soldering conditions.

## **List of Varieties**

#### Sharp Feeling Type

		anng i	SKHR	CVIII	CVIIII	CVINA	CVDD	SKQJ	CVIII	CKIIII	CKO I	CVOD	CKOII
	Series		SKHR	SKHL	SKHH	SKHW	SKRD	SKQJ	SKHL	SKHH	SKQJ	SKQB	SKQU
Photo						100	<b>%</b>			0			
	Туре							Snap-in					
	eature	s	_			Dust-proof type	Horizontal type	_	Но	rizontal ty	ype	Water- proof	4-direction switch+push switch
Open Verdire		tical	•	•	•	•	_	•	_		_	•	•
Operating direction	Horizontal		_			_	•	_	•	•	•	_	<u> </u>
		w		6		70	6.2		7.3	7.5			140
Dimer (m		D	□4.5	3.5		<b>]</b> 6	7.15	□6.6	7.22 7.85		85		
		Н	3.8		4.3		7.4	5	4.3	7.4	7.3	5	7.1
Opera for cove	ce	1N 5N	1	<b>1</b>		<b>1</b>	1	1	<b>1</b>	<b>1</b>	1	<b>1</b>	See the relevant pages for respective product
Travel (mm)			0.25		0.3		0.25 0.				0.3	descriptions	
Ground terminal		ninal	_	_	•	_	• -						_
Operating			-20°C to +70°C SKHL(Vertical Type)/QJ										
ten	temperature range -30°C to +85°C												
Automotive use												_	
Elec		ulation stance 100MΩ min. 100V DC											
Electrical performance	Volt			250V AC for 1min.									
	Vibra	ation	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	Lifet	ime	Shall be in accordance with individual specifications.										
Envi per	Co	old	eat 80±2°C for 96h										
Environmental performance	Dry	heat											
ental	Damp	heat											
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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.

■ TACT Switch™ Cautions······335

Product Line of Knobs for TACT Switch™ ·······336

### **Notes**

- 1. The automotive operating temperature range to be individually discussed upon request.
- 2. marks in "Available for automotive use" indicate that all of the series products can work at the operating temperature range from -40°C to +85°C.

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Sharp Feeling Soft **Feeling** Snap-in

Type Surface

**Mount Type Radial** Type

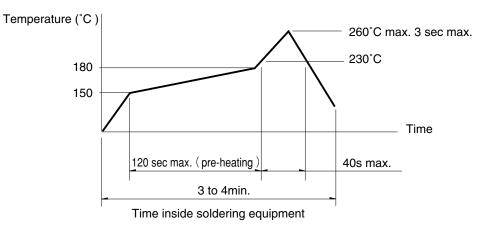
## **Soldering Conditions**

#### Condition for Reflow

#### Available for Surface Mount Type.

- 1. Heating method: Double heating method with infrared heater.
- 2. Temperature measurement: Thermocouple 0.1 to  $0.2\phi$  CA (K) or CC (T) at solder joints (copper foil surface). A heat resistive tape should be used to fix thermocouple.

3. Temperature profile



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 (Except, 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°C max.
Preheating time	60s max.
Soldering temperature	260°C max.
Duration of immersion	5s max.
Number of soldering	2times max.

■ Manual Soldering (Except SKRT Series)

Items	Condition
Soldering temperature	350°Cmax.
<b>Duration of soldering</b>	3s max.
Capacity of soldering iron	60W max.

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

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#### **Notes**

- Consult with us for availability of TACT Switch<sup>™</sup> 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.
- 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.)