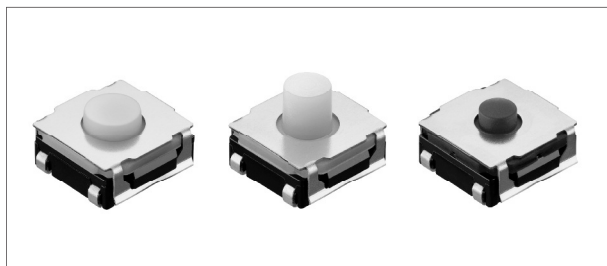


TACT Switch™ 6.2mm Square with Middle-travel (Surface Mount Type)

SKRA Series



Rubber stem helps to achieve travel of 0.3 to 0.55mm & over travel.



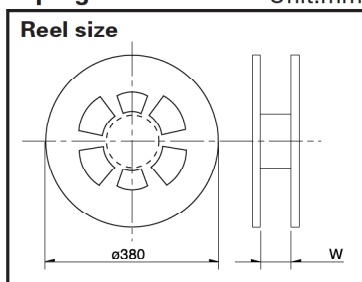
Product Line

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.)
SKRAAUE010	0.6N	Vertical	0.35	50mA 12V DC	10μ A 1V DC	5,000,000cycles	100mΩ max.	Green	3,000
SKRAAKE010	2.45N		0.3					100,000cycles	
SKRAALE010	3.92N		0.35			Blue			1,400
SKRAAME010	1.96N		0.5						
SKRAAQE010	3.43N		0.55						

Packing Specifications

Taping

Unit:mm



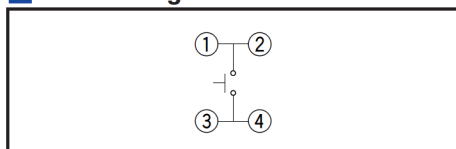
Series	Number of packages (pcs.)			Real width W (mm)	Tape width (mm)	Export package measurements (mm)
	1 reel	1 case /Japan	1 case /export packing			
SKRAAK SKRAAL SKRAAU	3,000	30,000	30,000	13.5	12	401×401×214
SKRAAM SKRAAQ	1,400	11,200	11,200	17.5	16	

Dimensions

Unit:mm

Style	PC board land dimensions (Viewed from switch mounting face)												
<table border="1"> <thead> <tr> <th></th> <th>h</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>SKRAAU</td> <td>3.4</td> <td>2.0</td> </tr> <tr> <td>SKRAAK · SKRAAL</td> <td>3.4</td> <td>2.9</td> </tr> <tr> <td>SKRAAM · SKRAAQ</td> <td>5.1</td> <td>2.5</td> </tr> </tbody> </table>		h	A	SKRAAU	3.4	2.0	SKRAAK · SKRAAL	3.4	2.9	SKRAAM · SKRAAQ	5.1	2.5	
	h	A											
SKRAAU	3.4	2.0											
SKRAAK · SKRAAL	3.4	2.9											
SKRAAM · SKRAAQ	5.1	2.5											

Circuit Diagram



Notes

- Please place purchase orders per minimum order unit N (integer).
- For φ330mm diameter reel requirements, please contact us.

Refer to P.334 for soldering conditions.

- 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



Automotive Use

List of Varieties

Sharp Feeling Type

Series		SKRN	SKSE	SPEE	SKSF	SKSG	SKRK	SKRP	SKQM	SKQY	SKRA	SKHM	
Photo													
Type		Surface mount											
Features		Double action	Horizontal type Double action		Compact size Low-profile	High operation force Compact size	Compact size Low-profile	High operation force Compact size	Compact size		Middle travel	—	
Operating direction	Vertical	●	—		●	●	●	●	●	●	●	●	
	Horizontal	—	●	●	—								
Dimensions (mm)	W	□6	5.9	4	2.8	3	3.9	4.2	6	6.1	□6.2	6.2	
	D		2.87	5	2.4	2.7	2.9	3.2	3.5	3.7		6.5	
	H	0.9	3	1.22	0.65	1.4	1.5	2.5	4.3	2.5	3.4	3.1	
Operation force coverage		1N			See the relevant pages for respective product descriptions			●	↕	↕	↕	↕	↕
		5N							↕	↕	↕	↕	↕
Travel (mm)		See the relevant pages for respective product descriptions			0.1	0.12	0.13	0.2	0.25		See the relevant pages for respective product descriptions	0.25	
Ground terminal		●	—		●	—		●	—	●	—	●	
Operating temperature range		-30°C to +85°C		-10°C to +60°C	-30°C to +85°C								
Automotive use		—			○	—	●	●	●	○	—		
Electrical performance	Insulation resistance	100MΩ min. 100V DC		10MΩ min. 100V DC	100MΩ min. 100V DC								
	Voltage proof	250V AC for 1min.	100V AC for 1min.				250V 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°C for 96h		-40±2°C for 96h	-30±2°C for 96h								
	Dry heat	80±2°C for 96h		85±2°C for 96h	80±2°C for 96h								
	Damp heat	60±2°C, 90 to 95%RH for 96h		40±2°C, 90 to 95%RH for 96h	60±2°C, 90 to 95%RH for 96h								
Page		306	307	102	308	309	310	311	312	313	314	315	

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 Conditions334
- TACT Switch™ Cautions335
- Product Line of Knobs for TACT Switch™336

Notes

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

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

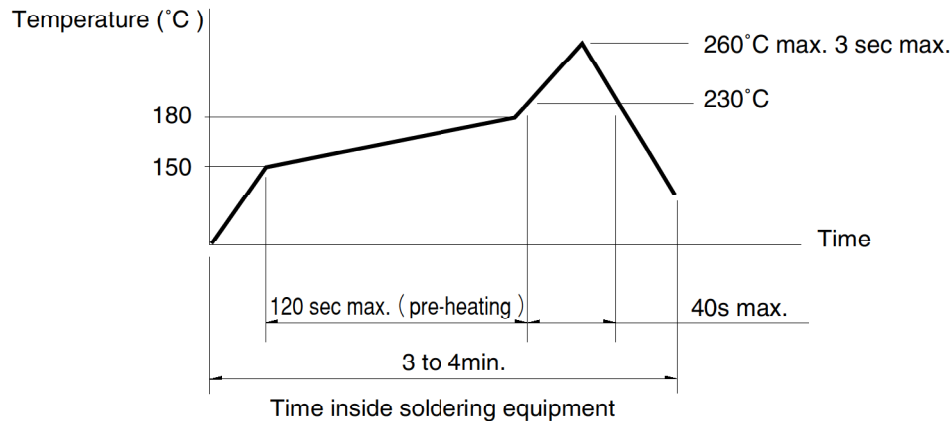
Sharp Feeling
 Soft Feeling
 Snap-in Type
 Surface Mount Type
 Radial Type

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 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
(Except, SKHL, SKQJ, SKOK, SKEG series)

Items	Condition
Flux built-up	Mounting surface should not be exposed to flux
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.

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
Soldering temperature	350°C max.
Duration of soldering	3s max.
Capacity of soldering iron	60W max.

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
ProductsSharp
FeelingSoft
FeelingSnap-in
TypeSurface
Mount TypeRadial
Type