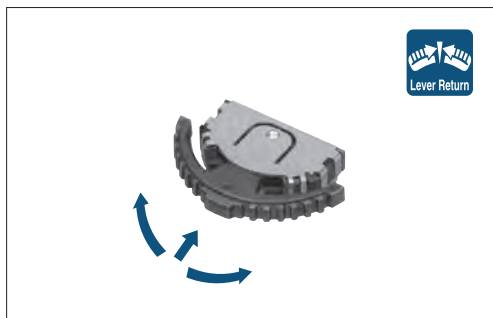


Compact two-way input device approximately 50% smaller than our conventional models



Typical Specifications

Items		Specifications
Rating (max.)/(min.) (Resistive load)		10mA 5V DC/50μA 3V DC
Contact resistance		1Ω max.
Operating force	Lever portion	0.65±0.3N
	Push portion	2.5±1N
Travel (Push operation)		0.7mm
Operating life	Without load	100,000 cycles
	With load	100,000 cycles (10mA 5V DC)

Product Line

Product No.	Actuator configuration	Push-on switch	Location lug	Minimum order unit (pcs.)		Drawing No.
				Japan	Export	
SLLB510100	Mounting knob integrated	With	With	1,500	6,000	1
SLLB510200			Without			
SLLB520100	Mounting knob		With			2
SLLB520200			Without			

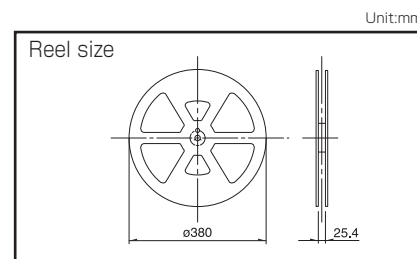
Packing Specifications

Taping

Number of packages (pcs.)			Tape width (mm)	Export package measurements (mm)
1 reel	1 case / Japan	1 case / export packing		
1,500	3,000	6,000	24	428×413×172

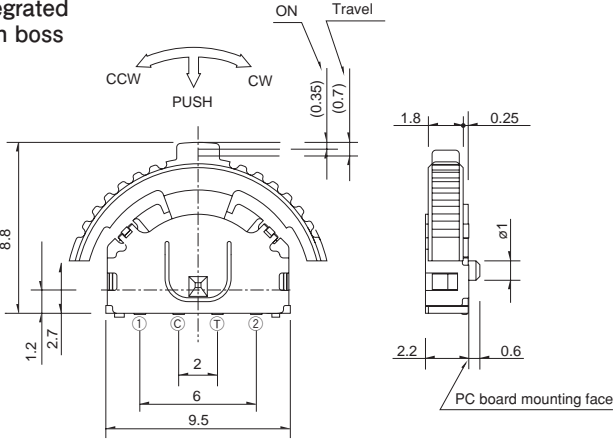
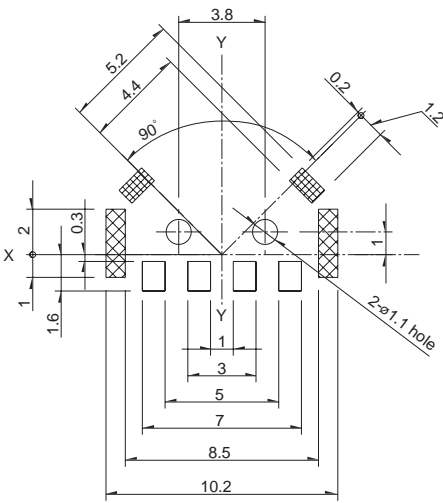
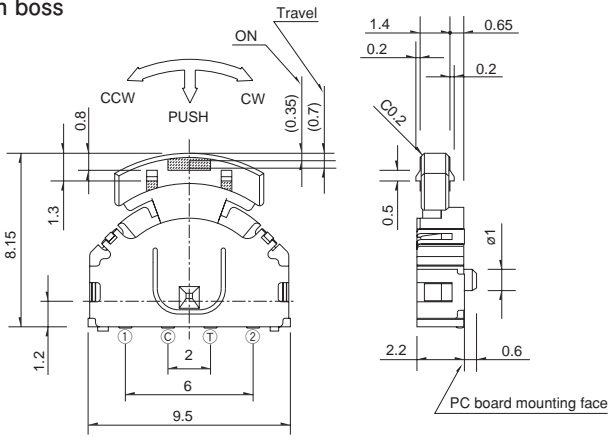
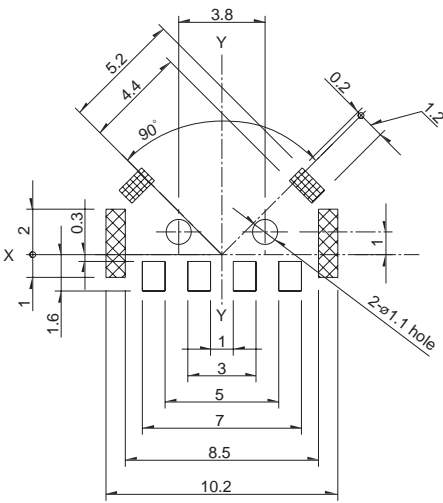
Note

For automotive use, please contact us.



■ Dimensions

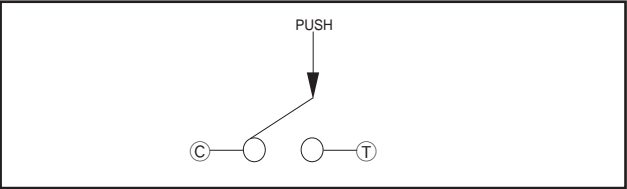
Unit:mm

No.	Style	PC board mounting hole and land dimensions
1	<p>Mounting knob integrated with boss</p> 	
2	<p>Mounting knob with boss</p> 	

Note

Dimensions drawing is for type with location lugs.

■ Circuit Diagram (Push Portion)










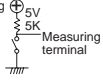
■ Code Table

Code Table (■ = ON)

		20°	0°	20°
Angle		(15°)		(15°)
Lever circuit	Terminal ①	■		■
	Terminal ②			
	Terminal ③	■	■	■
		CCW ← → CW		

Multi Control Devices

List of Varieties

Type		Switch type			
Series		SKRH		SRBE	SLLB5 Compact type
		SKRHAA/AB	SKRHAC/AD		
Photo					
Dimensions (mm)	W	7.35/7.45		—	9.5
	D	7.5		—	8.8
	H	5		—	2.2
Shaft material		Resin			
Directional resolution		4-direction		—	2-direction
Directional operating feeling (tactile feeling)		With		Without	Without
Lever return mechanism		With		Without	With
Center-push switch		With			
Encoder		Without		With	Without
Operating temperature range		-40°C to +85°C		-10°C to +60°C	
Operating life	Without load	—		100,000 cycles	
	With load(10mA 5V DC)	—		100,000 cycles	
	With load(5mA 5V DC)	200,000 cycles for each direction	1,000,000 cycles for each direction	—	—
Automotive use		—		—	—
Life cycle (availability)					
Rating (max.) (Resistive load)		50mA 12V DC		1mA 5V DC	10mA 5V DC
Electrical performance	Output voltage	—		1V max. at 1mA 5V DC (Resistive load)	— 
	Encoder resolution	—		6 pluses/360°	—
	Insulation resistance	100MΩ min. 100V DC		10MΩ min. 50V DC	100MΩ min. 100V DC
	Voltage proof	100V AC for 1min.		50V AC for 1min.	100V AC for 1min.
Mechanical performance	Directional operating force	1.23±0.69N	1.2±0.69N	—	0.65±0.3N
	Push operating force	2.35±0.69N		3.5±1.5N	2.5±1N
	Encoder detent torque	—		3±2mN·m	—
	Terminal strength	—		3N for 1min.	
	Actuator strength	—	—	50N	
Environmental performance	Cold	-40°C 96h		-30°C 96h	-20°C 96h
	Dry heat	90°C 96h		85°C 96h	
	Damp heat	60°C, 90 to 95%RH 96h		40°C, 90 to 95%RH 96h	
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Switch Type Multi Control Devices Cautions 413

Switch Type Multi Control Devices / Soldering Conditions

Reference for Manual Soldering

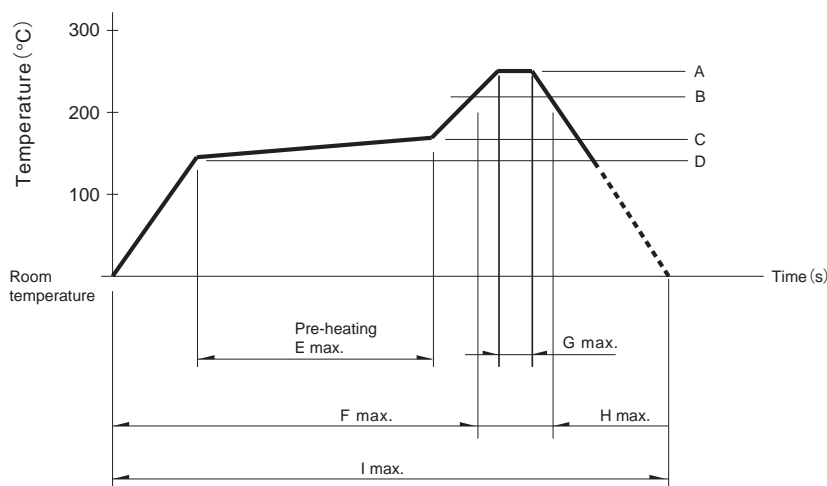
Series	Tip temperature	Soldering time	No. of solders
RKJXT1F, RKJXM, RKJXL, SLLB, SLLB5, SRBE, SKRH	350±5℃	3s max.	1 time

Reference for Dip Soldering

Series	Preheating		Dip soldering		No. of solders
	Soldering surface temperature	Heating time	Soldering temperature	Soldering time	
RKJXT1F, RKJXM	100℃ max.	2 min. max.	260±5℃	5±1s	2 time max.
RKJXL	120℃ max.	70s max.	260℃ max.	6s max.	2 time max.

Example of Reflow Soldering Condition

1. Heating method: Double heating method with infrared heater.
2. Temperature measurement: Thermocouple $\phi 0.1$ to 0.2 CA (K) or CC (T) at soldering portion (copper foil surface).
A heat resisting tape should be used for fixed measurement.
3. Temperature profile



Series	A	B	C	D	E	F	G	H	I	No. of reflows
SLLB5	250℃	230℃	150℃	150℃	—	2 min.	—	30s	—	1 time
SLLB, SRBE	260℃	230℃	180℃	150℃	2 min.	—	—	40s	—	1 time
SKRH	260℃	230℃	180℃	150℃	2 min.	—	3s	40s	3-4 min.	2 times

Notes

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.