

Slide Switch Recoil Type for Single Side and Both Sides

SSAG Series



Long life recoil type meeting more compact and low-profile needs.

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products

Small size
General Use type

Big size
General Use type

Other Use type

NEW



Typical Specifications

Items	Specifications
Rating (max.) / (min.) (Resistive load)	10mA 5V DC/50 μ A 3V DC
Contact resistance (Initial performance/After lifetime)	200m Ω max./500m Ω max.
Operating force	1N (Recoil side) ,1.5N (Lock side)
Operating life	100,000cycles (Recoil side) 30,000cycles (Lock side)

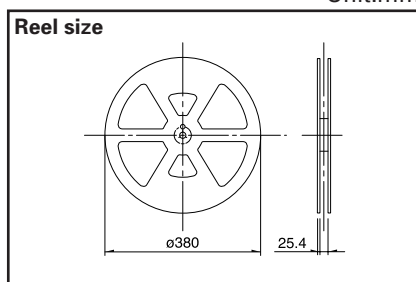
Product Line

Travel (mm)	Operating section directions	Poles	Positions	Changeover timing	Soldering	Operating	Shape of flame leg	Location lug	Minimum order unit (pcs.)	Products No.	Drawing No.	
1.5	Horizontal	1	3	Not specified	Reflow	Left-side recoil	For PC board insert	Without	16,000	SSAG130100	1	
								With		SSAG130200		
							Flat	Without		SSAG130300	2	
								With		SSAG130400		
							Right-side recoil	For PC board insert		Without	SSAG230100	3
										With	SSAG230200	
						Flat		Without		SSAG230300	4	
								With		SSAG230400		
						Double-side recoil		For PC board insert		Without	SSAG330100	5
										With	SSAG330200	
							Flat	Without		SSAG330300	6	
								With		SSAG330400		

Packing specifications

Taping

Unit:mm



Number of packages (pcs.)			Tape width (mm)	Export package measurements (mm)
1 reel	1 case /Japan	1 case /export packing		
4,000	8,000	16,000	24	428×413×172

Note

Please place purchase orders per minimum order unit N (integer).

Dimensions

Unit:mm

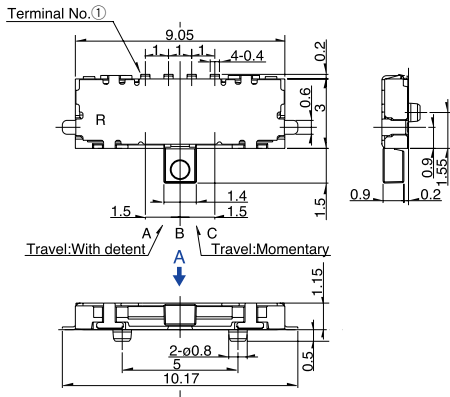
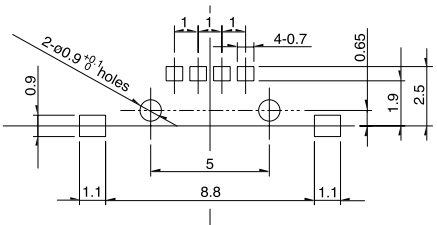
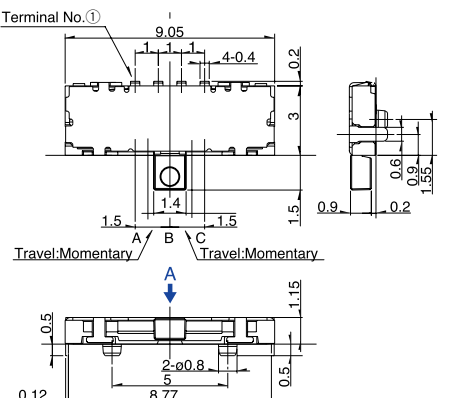
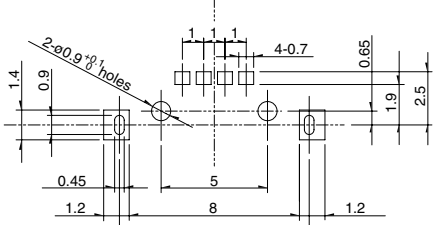
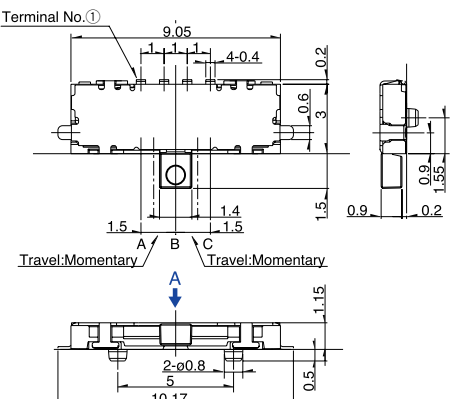
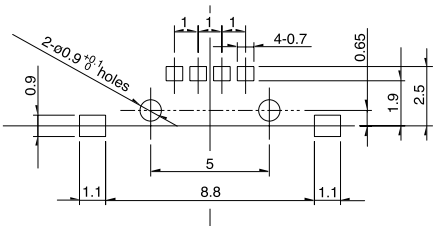
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- Small size General Use type
- Big size General Use type
- Other Use type

No.	Style	PC board mounting hole and land dimensions (Viewed from the direction A)
1	<p>Terminal No.①</p> <p>9.05 4-0.4 0.2</p> <p>3</p> <p>1.5 1.4 1.5</p> <p>0.9 0.6 0.9 1.55</p> <p>0.2</p> <p>A B C</p> <p>Travel: Momentary / Travel: With detent</p> <p>0.5 1.15</p> <p>2-φ0.8 5</p> <p>0.12 8.77 0.5</p> <p>OPERATING FORCE : B→C→B 1.5N B→A 1N</p>	<p>2-φ0.9^{H7/g6} holes</p> <p>1.4 0.9 1 1 1 4-0.7 0.65 1.9 2.5</p> <p>0.45 5 1.2</p> <p>8 8.92</p>
2	<p>Terminal No.①</p> <p>9.05 4-0.4 0.2</p> <p>3</p> <p>1.5 1.4 1.5</p> <p>0.9 0.6 0.9 1.55</p> <p>0.2</p> <p>A B C</p> <p>Travel: Momentary / Travel: With detent</p> <p>0.5 1.15</p> <p>2-φ0.8 5</p> <p>10.17 0.5</p> <p>Operating force : B→C→B 1.5N B→A 1N</p>	<p>2-φ0.9^{H7/g6} holes</p> <p>0.9 1 1 1 1 4-0.7 0.65 1.9 2.5</p> <p>1.1 5 1.1</p> <p>8.8</p>
3	<p>Terminal No.①</p> <p>9.05 4-0.4 0.2</p> <p>3</p> <p>1.5 1.4 1.5</p> <p>0.9 0.6 0.9 1.55</p> <p>0.2</p> <p>A B C</p> <p>Travel: With detent / Travel: Momentary</p> <p>0.5 1.15</p> <p>2-φ0.8 5</p> <p>0.12 8.77 0.5</p> <p>Operating force : B→A A→B 1.5N B→C 1N</p>	<p>2-φ0.9^{H7/g6} holes</p> <p>1.4 0.9 1 1 1 4-0.7 0.65 1.9 2.5</p> <p>0.45 5 1.2</p> <p>8 8.92</p>

Dimensions

Unit:mm

No.	Style	PC board mounting hole and land dimensions (Viewed from the direction A)
4	 <p>Terminal No.①</p> <p>9.05 4-0.4 0.2 0.6 3 0.9 0.9 0.9 1.55 0.2</p> <p>1.5 1.4 1.5 1.5 1.15</p> <p>Travel:With detent A B C Travel:Momentary</p> <p>2-φ0.8 5 10.17 0.5</p> <p>Operating force : B→A A→B 1.5N B→C 1N</p>	 <p>2-φ0.9^{+0.1} holes</p> <p>1 1 4-0.7 0.65 1.9 2.5 0.9 1.1 5 8.8 1.1</p>
5	 <p>Terminal No.①</p> <p>9.05 4-0.4 0.2 0.6 3 0.9 0.9 0.9 1.55 0.2</p> <p>1.5 1.4 1.5 1.5 1.15</p> <p>Travel:Momentary A B C Travel:Momentary</p> <p>0.5 0.12 2-φ0.8 5 8.77 0.5</p> <p>Operating force : B→A B→C 1N</p>	 <p>2-φ0.9^{+0.1} holes</p> <p>1.4 0.9 1.2 5 8 8.92 1.2 4-0.7 0.65 1.9 2.5</p>
6	 <p>Terminal No.①</p> <p>9.05 4-0.4 0.2 0.6 3 0.9 0.9 0.9 1.55 0.2</p> <p>1.5 1.4 1.5 1.5 1.15</p> <p>Travel:Momentary A B C Travel:Momentary</p> <p>2-φ0.8 5 10.17 0.5</p> <p>Operating force : B→A B→C 1N</p>	 <p>2-φ0.9^{+0.1} holes</p> <p>1 1 4-0.7 0.65 1.9 2.5 0.9 1.1 5 8.8 1.1</p>

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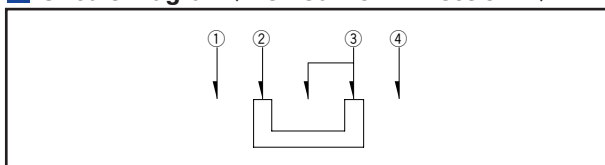
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Other Use type







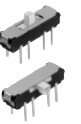

Note

Above dimensions indicate "with location lug" version.

Circuit Diagram (Viewed from Direction A)



List of Varieties

Series		SSAJ	SSAG	SSAH	SSAD	SSSS8	SSSS7 ※	SSSS2	SSSS9 ※	
Photo										
Outline specifications	Travel (mm)	1.4	1.5			1.5 2		2		
	Actuator direction	Horizontal				Vertical Horizontal	Horizontal	Vertical Horizontal		
	Number of poles	1				1 2				
Dimensions (mm)	W	5.5	9.05	9.5	6.7	11.2	8.8	13	14	
	D	2.5	3			3.2	2.6	3	3.5	4.7
	H	0.7	1.15	0.9	0.7	1.4	2	5		
Operating temperature range		-10°C to +60°C		-30°C to +60°C	-40°C to +85°C	-40°C to +85°C			-10°C to +60°C	
Rating (max.) / (min.) (Resistive load)		10mA 5V DC		1mA 5V DC		0.3A 5V DC	0.3A 4V DC	0.3A 6V DC	0.1A 12V DC	
		50μA 3V DC								
Electrical performance	Initial contact resistance	300mΩ max.	200mΩ max.		100mΩ max.	70mΩ max.			30mΩ max.	
	Insulation resistance	100MΩ min. 100V DC					100MΩ min. 500V DC			
	Voltage proof	100V AC for 1minute					500V AC for 1minute			
Mechanical performance	Terminal strength	3N for 1minute								
	Actuator strength	10N			5N	10N		20N	30N	
						10N Static force				10N
Durability	Operating life without load	10,000cycles 500mΩ max.	100,000cycles 500mΩ max.	10,000cycles 300mΩ max.	10,000cycles 100mΩ max. ※2				10,000cycles 60mΩ max.	
	Operating life without load Load:as rating				10,000cycles 200mΩ max.				10,000cycles 80mΩ max.	
Environmental performance	Cold	-40±2°C for 96h	-20±2°C for 96h			-40°C for 96h	-20°C for 96h			
	Dry heat	85±2°C for 96h								
	Damp heat	40±2°C, 90~95%RH for 96h								
Soldering	Manual soldering	350±5°C 3s max.			300±5°C 5s max.		300±5°C 3s max.	350±10°C 4s max.	300±10°C 5s max.	
	Dip soldering							260±5°C 3±1s	260±5°C 5 ⁹ s (2回)	
	Reflow soldering	Please see P.182								
Poles-positions	1-2	●	—	—	●	●	●	●	●	
	1-3	—	●	●	—	●	●	●	●	
	1-4	—				●	—	●	—	
	2-2	—				●	—	●	●	
	2-3	—				●	—	●	●	
	2-4	—						●	—	
	4-2	—								
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Note

※The operating temperature range for automotive applications can be raised upon request. Please contact us for details.

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Small size
General Use type

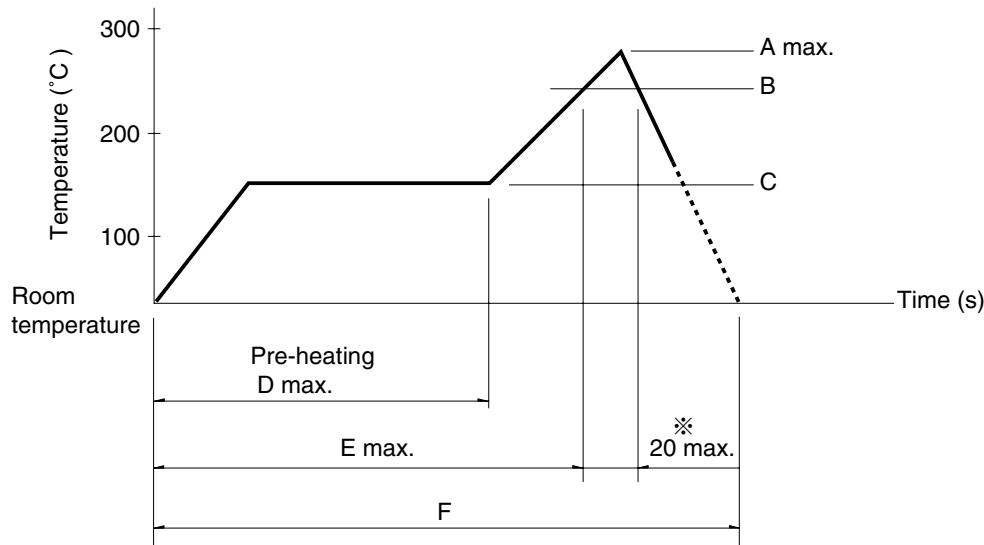
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Other Use type

Soldering Conditions

Example of Reflow Soldering Condition

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 soldering portion (copper foil surface). A heat resisting tape should be used for fixed measurement.
3. Temperature profile



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Series (Reflow type)			A (°C) 3s max.	B (°C)	C (°C)	D (s)	E (s)	F (s)
SSSS2	Vertical	1-pole, 3-positions	250	200	150	120	—	—
	Horizontal	1-pole, 2-positions						
	Vertical	1-pole, 2-positions	240					
	Horizontal	1-pole, 3-positions 2-poles, 3-positions						
SSSS7			250					
SSAH, SSAG			260	230	150	120	—	—
SSAD			240	220				
SSSS8	Horizontal	1-pole, 2-positions 1-pole, 3-positions (1.5mm)	255	200				
		1-pole, 3-positions (2mm) 1-pole, 4-positions 2-poles, 2-positions	240	220				
	Vertical							

Notes

1. The condition mentioned above is the temperature 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 PC board's material, size, thickness, etc. 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.
3. ※SSAH and SSAG only 40's.