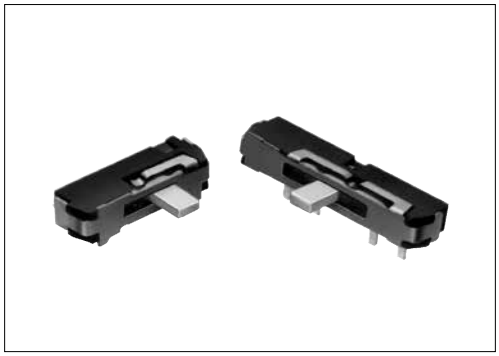
SSSS7 2(H)mm, 2mm-travel Type

Compact general purpose type with specifiable soldering method



Typical Specifications

Items		Specifications
Rating (max.)/(min.) (Resistive load)		0.3A 4V DC / 50μA 3V DC
Contact resistance (Initial performance / After lifetime)		70mΩ max. / 130mΩ max.
Operating force		Refer to the dimensions.
Operating life	Without load	10,000 cycles
	With load	10,000 cycles (0.3A 4V DC)

Product Line

Travel (mm)	Actuator direction	Actuator length (mm)	Poles	Positions	Changeover timing	Soldering	Operation	Minimum order unit (pcs.) Japan	Minimum order unit (pcs.) Export	Products No.	Drawing No.
2	Horizontal	2	1	2	Not specified	Manual	Standard	10,000	50,000	**SSSS710100**	1
						Reflow		2,000	8,000	**SSSS710607**	2
				3	Non shorting	Manual		8,000	40,000	**SSSS711100**	3
						Reflow		2,000	8,000	**SSSS711403**	4

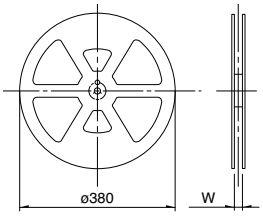
Packing Specifications

Taping

Product No.	Number of packages (pcs.) 1 reel	1 case /Japan	1 case /export packing	Reel width W (mm)	Tape width (mm)	Export package measurements (mm)
SSSS710607	2,000	4,000	8,000	17.4	16	417×409×139
SSSS711403				25.4	24	406×406×190

Unit:mm

Reel size



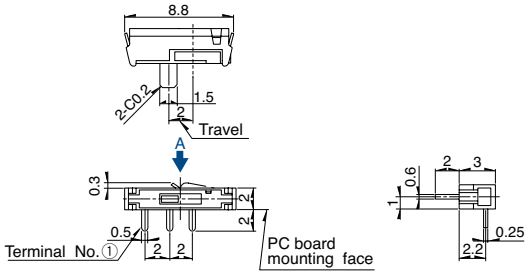
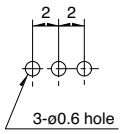
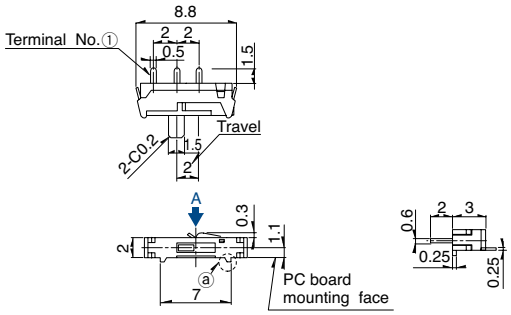
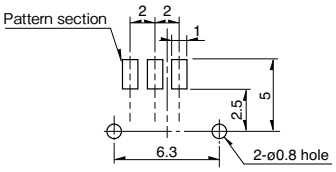
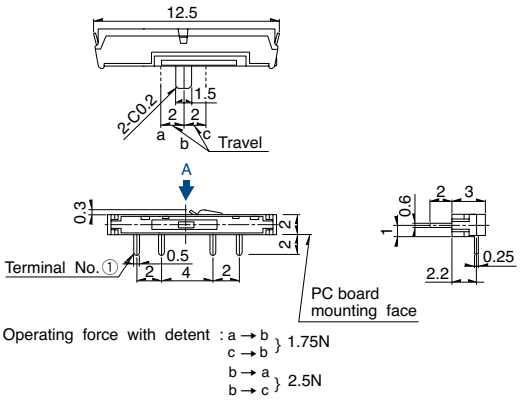
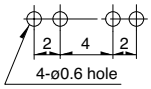
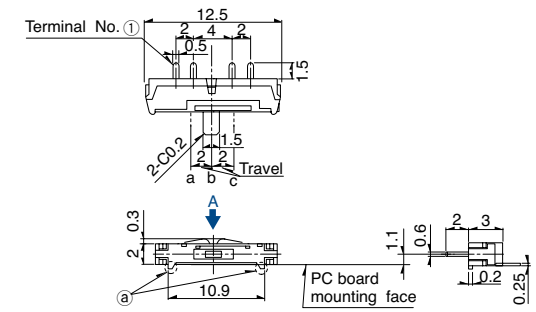
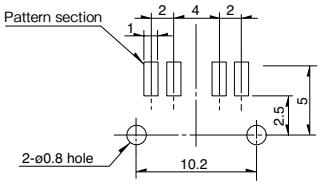
Bulk

Product No.	Number of packages (pcs.) 1 case /Japan	1 case /export packing	Export package measurements (mm)
SSSS710100	10,000	50,000	400×270×290
SSSS711100	8,000	40,000	

Refer to P.106 for soldering conditions.

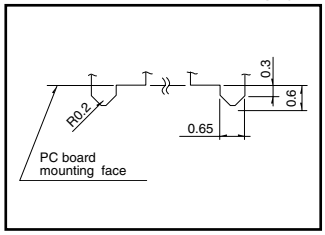
Dimensions

Unit:mm

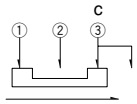
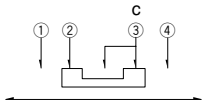
No.	Photo	Style	PC board mounting hole dimensions (Viewed from direction A)
1	**1-pole, 2-position** 	 Operating force with detent : 1.5N	
2	**1-pole, 2-position** **Reflow** 	 Operating force with detent : 1.5N	
3	**1-pole, 3-position** 	 Operating force with detent : a → b, c → b } 1.75N b → a, b → c } 2.5N	
4	**1-pole, 3-position** **Reflow** 	 Operating force with detent : a → b, c → b } 1.75N b → a, b → c } 2.5N	

Detail of ⓐ

Unit:mm



Circuit Diagram (Viewed from Direction A)

1-pole, 2-position Drawing No.1, 2	1-pole, 3-position Drawing No.3, 4
	

List of Varieties

Series			SSAJ	SSAH	SSSS8	SSAL	SSAG	SSSS7
Photo								
Actuator direction		Horizontal	●	●	●	●	●	●
		Vertical	—	—	●	—	—	—
Poles-positions		1-2	●	—	●	●	—	●
		1-3	—	●	●	—	●	●
		1-4	—	—	—	—	—	—
		2-2	—	—	●	—	—	—
		2-3	—	—	●	—	—	—
		2-4	—	—	—	—	—	—
		4-2	—	—	—	—	—	—
Travel (mm)			1.4	1.5	1.5, 2	2	1.5	2
Operating temperature range			−10℃ to +60℃	−30℃ to +60℃	−40℃ to +85℃	−10℃ to +60℃		−40℃ to +85℃
Automotive use			—	—	—	—	—	—
Life cycle			★3	★2	★3	★3	★3	★3
Rating (max.) (Resistive load)			10mA 5V DC	1mA 5V DC	0.3A 5V DC	10mA 5V DC		0.3A 4V DC
Rating (min.) (Resistive load)			50μA 3V DC					
Durability	Operating life without load		10,000 cycles 500mΩ max.	10,000 cycles 300mΩ max.	10,000 cycles 100mΩ max.	100,000 cycles 10Ω max.	30,000 cycles (Lock side) 100,000 cycles (Recoil side) 500mΩ max.	10,000 cycles 100mΩ max.
	Operating life with load Load: as rating				10,000 cycles 130mΩ max.			10,000 cycles 130mΩ max.
Electrical performance	Initial contact resistance		300mΩ max.	200mΩ max.	70mΩ max.	10Ω max.	200mΩ max.	70mΩ 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	Operating direction	10N					
		Pulling direction						
Environmental performance	Cold		−40℃ 96h		−40℃ 500h	−40℃ 96h		−20℃ 500h
	Dry heat		85℃ 96h		85℃ 500h	85℃ 96h		85℃ 500h
	Damp heat		40℃, 90 to 95%RH 96h	60℃, 90 to 95%RH 240h	60℃, 90 to 95%RH 500h	40℃, 90 to 95%RH 96h		60℃, 90 to 95%RH 500h
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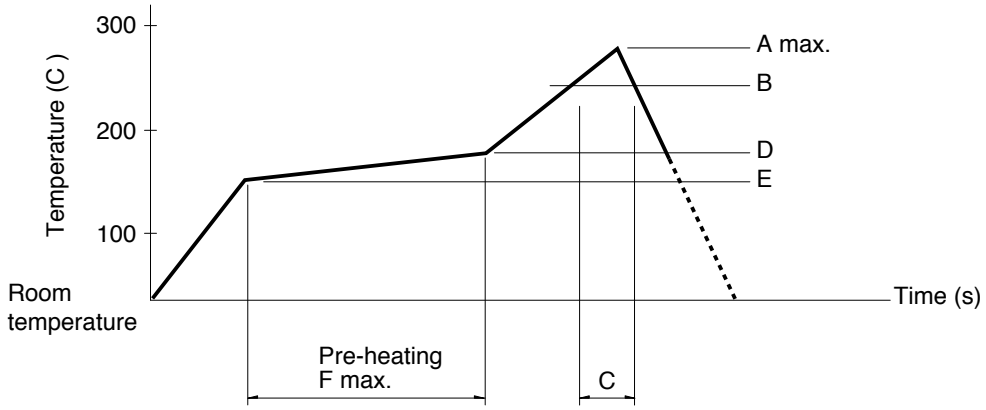
Slide Switches Soldering Conditions · · ·

Example of Reflow Soldering Condition

1. Heating method: Double heating method with infrared heater.
2. Temperature measurement: Thermocouple ϕ 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 (Reflow type)			A (℃) 3s max.	B (℃)	C (s)	D (℃)	E (℃)	F (s)
SSSS2	Vertical	1-pole, 3-position	260	230	40	180	150	120
	Horizontal	1-pole, 2-position 1-pole, 3-position 2-pole, 3-position						
	Vertical	1-pole, 2-position	250					
SSSS7								
SSAH, SSAG, SSAJ, SSAL, SSSS8			260					

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.

Reference for Hand Soldering

Series	Soldering temperature	Soldering time
SSSF, SSSU	350±10℃	3+1/0s
SSSS2	350±10℃	4s max.
SSSS9	350±10℃	3s max.
SSAH, SSAG, SSAJ, SSAL	350±5℃	3s max.
SSSS8	330±5℃	3s max.
SSSS7	320±5℃	3s max.
SSAC	300±10℃	2s max.

Reference for Dip Soldering

(For PC board terminal types)

Series	Items		Dip soldering	
	Preheating temperature	Preheating time	Soldering temperature	Duration of immersion
SSSS2	100℃ max.	60s max.	260±5℃	3±1s
SSSS9	120℃ max.	60s max.	260±5℃	5+0/-1s (2 times)
SSSF, SSSU	100℃ max.	60s max.	260±5℃	10±1s/5±1s
SSAC	100℃ max.	60s max.	260±5℃	5±1s