

0.7(H)mm, 1.5mm-travel Surface Mount Type Slide Switch

SSAD Series

6.7(W) × 3.2(D) × 0.7(H)mm. This model is 50% thinner than our conventional model.



Features

- 1.5mm-travel.
- Low profile (0.7mm thick).
- Reflow Soldering available.

Applications

- For switching modes and turning on/off the power of DSCs
- Mobile devices including mobile phones and PDAs
- For switching functions of memory cards

Typical Specifications

Items		Specifications
Rating (max.) (Resistive load)		1mA 5V DC
Contact resistance (Initial performance / After lifetime)		100mΩ max. / 150mΩ max.
Operating force		1N (+1N / -0.5N)
Operating life	Without load	10,000 cycles
	With load	10,000 cycles (1mA 5V DC)

Products Line

Travel (mm)	Operating section directions	Operating section thickness (mm)	Poles	Positions	Changeover timing	Ground terminal	Soldering	Location lug	Minimum packing unit (pcs.)	Products No.	Drawing No.
1.5	Horizontal	0.65	1	2	Not specified	With	Reflow	without	5,000	SSAD120100	1
		0.85						with		SSAD110100	2

Power

Push

Slide

Rotary

Encoders

Jog Shuttle

Telephone-hook

Detector

Vibration Sensors

Dual-in-line Package Type

Multi Control Devices

TACT

Small size General Use type

Big size General Use type

Other Use type

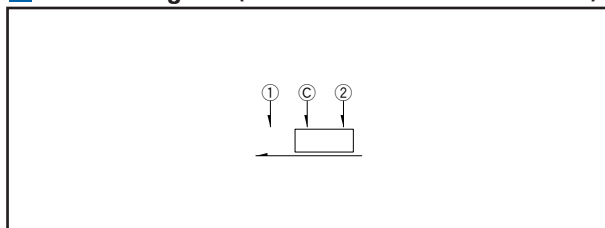
For other detailed specifications, see P.150
For specifications for the taping package, see P.153

Dimensions

Unit : mm

No.	Style	PC board land dimensions (Viewed from the direction A)
1		
2		

Circuit Diagram (Viewed from the Direction A)



Products Specifications

Items	Series		SSAD	SSSS8	SSSS7	SSSS2	SSSS9	SSSF	SSSU		
	Power	Operating temperature range		-10°C to +60°C							
Push	Rating (max.) (Resistive load)		1mA 5V DC	0.3A 4V DC		0.3A 6V DC	0.1A 12V DC	0.1A 30V DC			
Slide	Electrical performance	Initial contact resistance	100mΩ max.	70mΩ max.			30mΩ max.	25mΩ max.			
		Insulation resistance	100MΩ min. 100V DC		100MΩ min. 500V DC						
		Voltage proof	100V AC for 1 min.		500V AC for 1 min.						
Rotary	Mechanical performance	Robustness of terminal	3N for 1 min.				5N for 1 min.				
Jog Shuttle		Robustness of actuator	Operating direction	5N	10N	20N	30N				
Telephone-hook			Pulling direction	5N	10N static force		10N	30N static force			
Detector	Mechanical performance	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 2 hours respectively								
Vibration Sensors		Solderability	230±5°C, 3±0.5s								
Dual-in-line Package Type		Resistance to soldering heat	Manual soldering	300±5°C 5s max.	260±5°C 3s max.	350±10°C 4s max.	300±10°C 5s max.	350±10°C 5s max.	350±10°C 3 ⁺¹ ₀ s		
Multi Control Devices			Dip soldering	—			※1 260±5°C 5 ₋₁ s			260±5°C 10±1s	
TACT			Reflow soldering	Please see P.152				—			
Durability	Durability	Operating life without load	※2 10,000 cycles 100mΩ max.			10,000 cycles 60mΩ max.	10,000 cycles 45mΩ max.				
		Operating life with load Load : As rating	10,000 cycles 200mΩ max.	※2 10,000 cycles 130mΩ max.			10,000 cycles 80mΩ max.	10,000 cycles 65mΩ max.			
Small size General Use type	Environmental performance	Cold	-20±2°C for 96h								
		Dry heat	85±2°C for 96h								
		Damp heat	40±2°C, 90 to 95%RH for 96h								

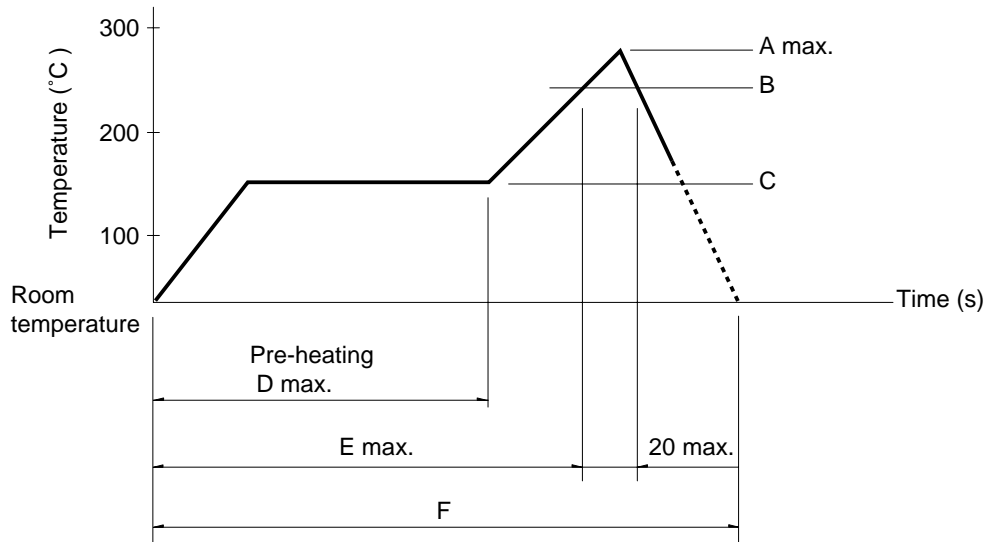
Note

- ※1 Horizontal type products in SSSS2 Series with 1 pole and 2 positions are not dip solderable.
- ※2 SSSS213202 only 100cycles.

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



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										
	Horizontal	1-pole, 3-positions 2-poles, 3-positions										
SSSS7			250									
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											
SSST			240	200								

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. You are requested to verify the soldering conditions thoroughly beforehand.

- Power
- Push
- Slide**
- Rotary
- Encoders
- Jog Shuttle
- Telephone-hook
- Detector
- Vibration Sensors
- Dual-in-line Package Type
- Multi Control Devices
- TACT

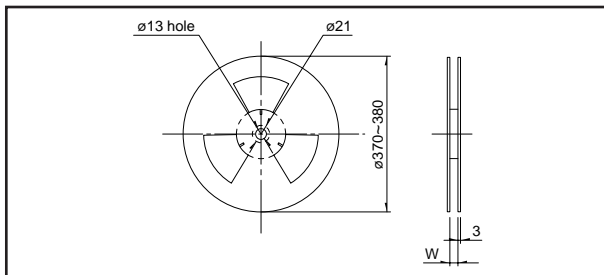
- Small size General Use type
- Big size General Use type
- Other Use type

Taping Specifications

Taping Packaging

Reel Size

Unit : mm



Series		Number of packages (pcs.)			Reel width W (mm)	Tape width (mm)	
		1 reel	1 case/domestic	1 case/export packing			
SSSS2		1,400	2,800	5,600	24.4	24	
SSSS7※		2,000	4,000	8,000	25.5		
SSSS8	Vertical	1,800	3,600	7,200	24.4	16	
	Horizontal	1-pole, 2-positions (1.5mm) 1-pole, 2-positions (2mm) 1-pole, 3-positions (1.5mm)	4,500	9,000	18,000		16.4
		1-pole, 3-positions (2mm)	4,500	9,000	18,000		24.4
		1-pole, 4-positions 2-poles, 2-positions	2,500	5,000	10,000		
SSST		1,100	2,200	4,400	16.4	16	
SSAD		5,000	10,000	20,000			

Notes

- Order products in N minimum packing units (1 reel or 1 case).
- ※For the SSSS7 Series only, the reel is different from what is illustrated.

Power

Push

Slide

Rotary

Encoders

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Telephone-hook

Detector

Vibration Sensors

Dual-in-line Package Type

Multi Control Devices

TACT

Small size
General Use typeBig size
General Use type

Other Use type