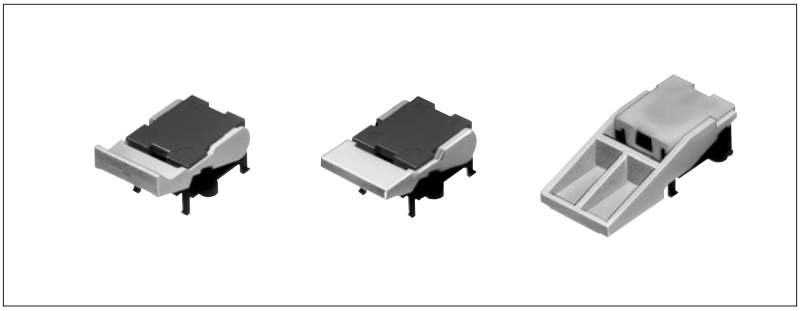
0.1A 48V DC Qualified Telephone-hook Switch

SPPY1 Series

Low profile type boast a wide variety of applications and high reliability, contributing to set design.



Features

- Low profile with thickness of 8.0mm.
- Using sliding contacts enhances reliability even for very low current.

Applications

- Switches for hooks of home-use FAX machines and cordless telephones

Typical Specifications

Items		Specifications
Rating (Resistive load)	min.	0.1mA 3V DC
	max.	0.1A 48V DC
Contact resistance (Initial performance / After lifetime)		50mΩ max. / 1Ω max.
Operating force		0.8N max.
Operating life	Without load	300,000 cycles
	With load Load : As rating	300,000 cycles

Products Line

Poles	Positions	Operation	Lever type	Minimum packing unit (pcs.)	Products No.	Drawing No.
1	2	Normal-operation	Flat	100	SPPY110600	1
		Reverse-operation	Reverse		SPPY110100	2
2		Normal-operation	Flat		SPPY121500	3
			Projected		SPPY120600	4

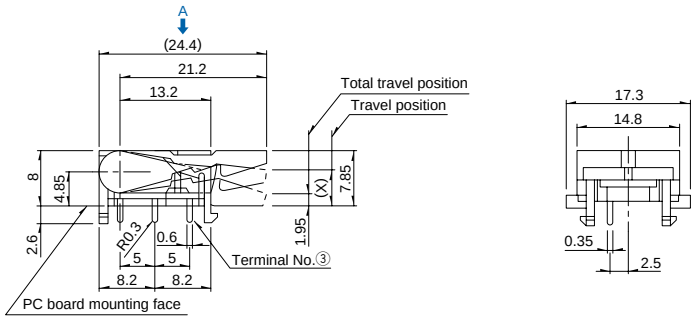
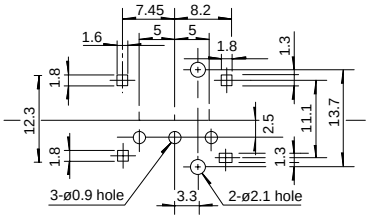
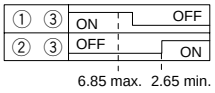
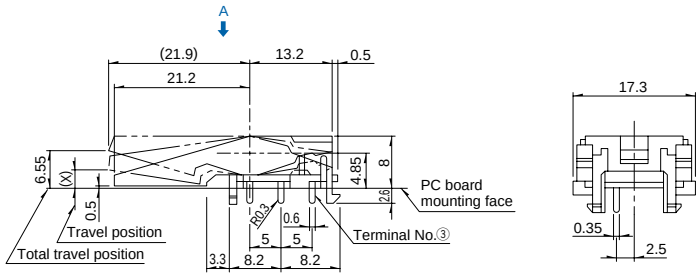
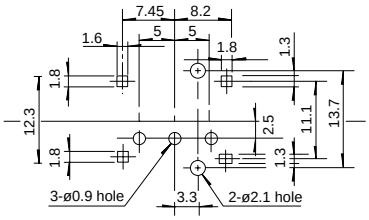
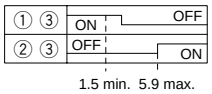
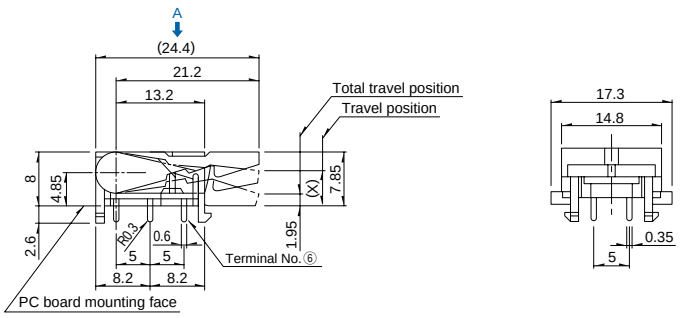
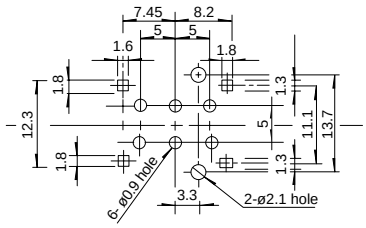
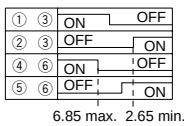
Notes

1. Additional switches not included in the above list are also available. Contact us for details.
2. Contact us for a high load type.

For other detailed specifications, see **P.250**

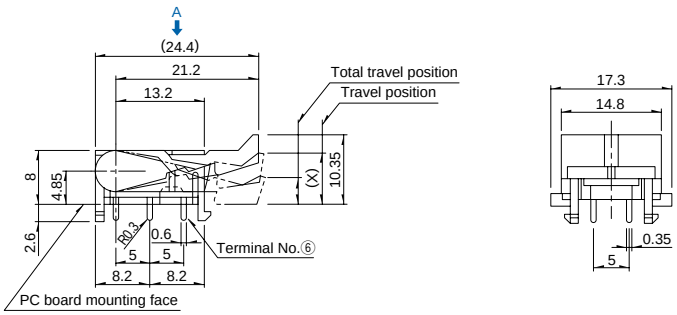
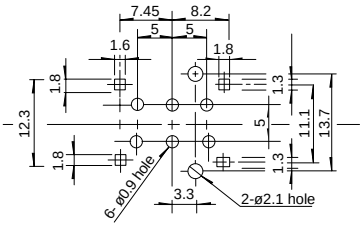
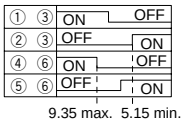
Dimensions

Unit : mm

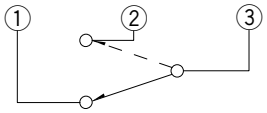
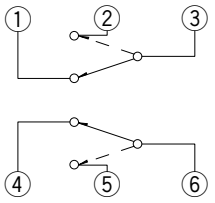
No.	Style	PC board mounting hole dimensions (Viewed from direction A)
1	**1-pole flat lever type** 	 **Timing lag diagram**  Travel position (X)
2	**1-pole reverse-operation lever type** 	 **Timing lag diagram**  Travel position (X)
3	**2-poles flat lever type** 	 **Timing lag diagram**  Travel position (X)

Dimensions

Unit : mm

No.	Style	PC board mounting hole dimensions (Viewed from direction A)
4	**2-poles with projected lever type** 	 **Timing lag diagram**  Travel position (X)

Circuit Diagram (Viewed from the Direction A)

1-pole	2-poles
	

Products Specifications

Items \ Series			SPPY1	SPPY5
Operating temperature range			–10℃ to +60℃	
Rating (Resistive load)			0.1mA 3V DC min. 0.1A 48V DC max.	0.1mA 3V DC min. 50mA 60V DC max.
Electrical performance	Initial contact resistance		50mΩ max.	100mΩ max.
	Insulation resistance		100MΩ min. 500V DC	
	Voltage proof		500V AC for 1 min.	
Mechanical performance	Robustness of terminal		5N for 1 min.	
	Robustness of actuator		10N	5N
	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	
	Solderability		230±5℃, 3±0.5s	
	Resistance to soldering heat	Manual soldering	350±10℃, 3^{+1}_{0}s	350±5℃, 3s max.
		Dip soldering	260±5℃, 5±1s	———
		Reflow soldering	———	240℃ max.
Durability	Operating life without load		300,000 cycles, 1Ω max.	
	Operating life with load		0.1mA 3V DC 300,000 cycles, 1Ω max.	
			0.1A 48V DC 300,000 cycles, 1Ω max.	50mA 60V DC 100,000 cycles, 1Ω max.
Environmental performance	Cold		–20±2℃ for 96h	
	Dry heat		85±2℃ for 96h	
	Damp heat		40±2℃, 90 to 95%RH for 96h	