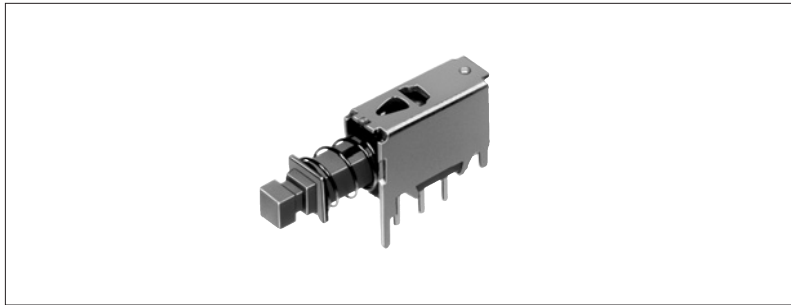


2.5mm-travel Compact-sized Horizontal Type Push Switch

SPPJ3 Series

Switches with a lever height of 4.7mm, directly mountable onto sets.



Car Use

Features

- 4.7mm in lever height from the mounting surface of a PC board.
- Both printed wiring and lead wiring available.
- Standard knobs are available.

Applications

- Information devices, including DVD players, CD-ROM drives, and PCs
- Electronic devices, including in-vehicle components, home appliances, and measuring devices

Typical Specifications

Items		Specifications
Rating (max.) (Resistive load)		0.2A 30V DC
Contact resistance (Initial performance / After lifetime)		20mΩ max. / 40mΩ max.
Operating force	1-pole	2.3±1N
	2-poles	3.3±1N
Operating life	Without load	10,000 cycles
	With load	10,000 cycles (0.2A 30V DC)

Products Line

Changeover timing	Travel (mm)	Total travel (mm)	Rating	Mounting method	Poles	Operating	Terminal style	Minimum packing unit (pcs.)	Products No.	Drawing No.
Non shorting	2.5	3.5	—	PC board	1	Latching	For PC board	100	SPPJ310500	1
						Momentary				
				M2-screw	2	Latching	Lead		SPPJ312200	2
						Momentary				
				PC board	2	Latching	For PC board		SPPJ320600	3
						Momentary			SPPJ322300	

Note

Additional switches not included in the above list are also available. Contact us for details.

Power

Push

Slide

Rotary

Encoders

Jog Shuttle

Telephone-hook

Detector

Vibration Sensors

Dual-in-line Package Type

Multi Control Devices

TACT

Horizontal Type

Vertical Type

For other detailed specifications, see P.100
For knobs, see P.101

Dimensions

Unit : mm

No.	Style	PC board mounting hole dimensions (Viewed from the direction A)
1	<p>1-pole, 2-positions</p>	
2	<p>1-pole, 2-positions</p>	<p>Mounting hole dimensions</p> <p>Mounting plate thickness t=1.0</p>
3	<p>2-poles, 2-positions</p>	

Operating Section Nose Shape

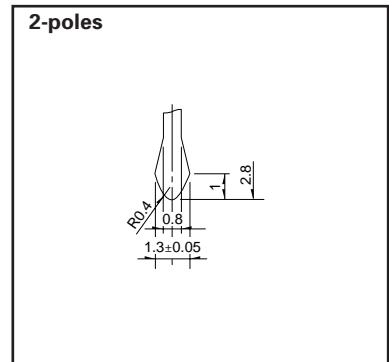
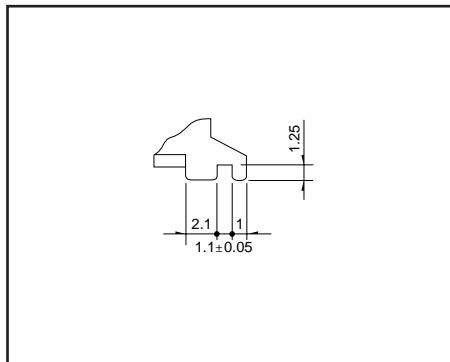
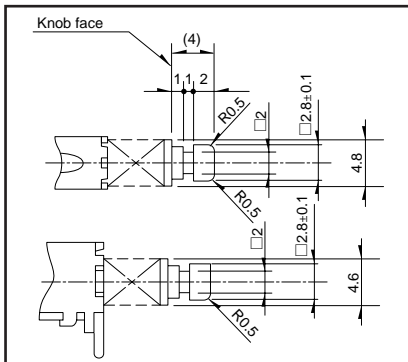
Unit : mm

Detail of (a), Applicable to Drawing No.2

Unit : mm

Detail of (b)

Unit : mm



Power

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Multi Control Devices

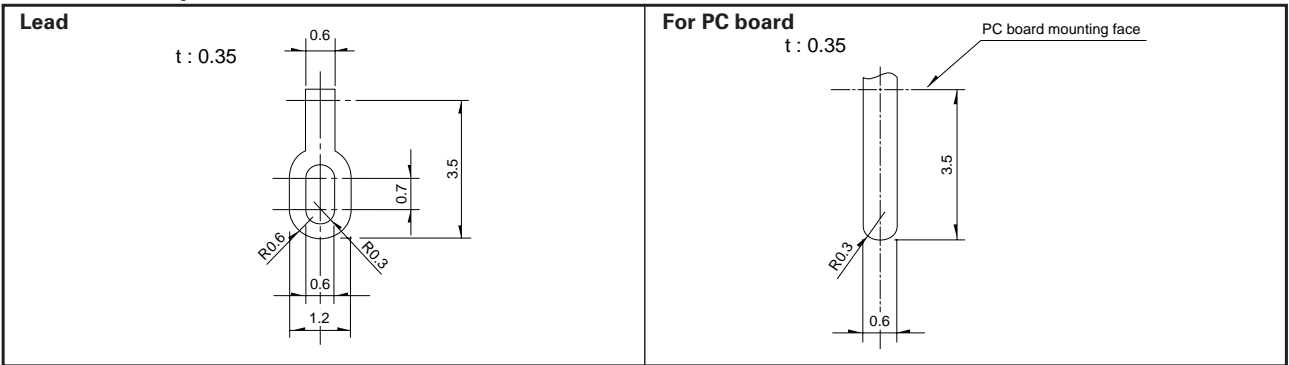
TACT

Horizontal Type

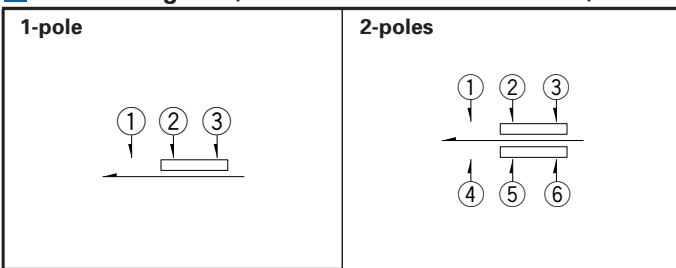
Vertical Type

Terminal Style

Unit : mm

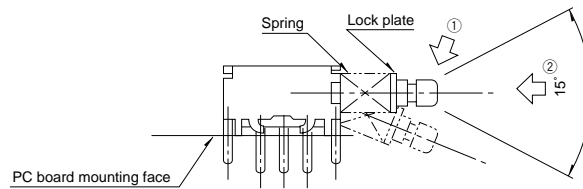


Circuit Diagram (Viewed from the Direction A)



Note

The SPPJ3 series should be operated in the direction of the arrow ② as shown in the following figure and used within an angle of 15° in reference to the center. If an excessive force is applied from the direction of the arrow ① against the lever, it might fall as illustrated, resulting in malfunction.



Products Specifications

Series		Item																		
		SPPJ6	SPPJ2	SPPJ3	SPUJ SPUP	SPUN	SPUN (medium current)	SPPH2	SPPH4	SPPH1	SPEA	SPEC	SPED1	SPED2	SPED3					
Power	Operating temperature range	-10°C to +60°C										-40°C to +85°C								
Push	Rating (max.) (Resistive load)	0.2A 12V DC	0.2A 30V DC		0.1A 30V DC		1A 25V DC	0.1A 12V DC	0.1A 30V DC				1A 14.5V DC							
Slide	Electrical performance	Initial contact resistance					20mΩ max.		30mΩ max.	100mΩ max.	20mΩ max.	30mΩ max.		100mΩ max.						
		Insulation resistance													100MΩ min. 500V DC			3MΩ min. 100V DC		
Rotary	Voltage proof													500V AC for 1 min.			100V AC for 1 min.			
Encoders	Robustness of terminal													5N for 1 min.		3N for 1 min.		—		
Jog Shuttle	Mechanical performance	Robustness of actuator	Operating direction		50N	30N		50N		30N		50N								
Telephone-hook			Pulling direction		—			50N		—	10N	—	50N		—					
Detector	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			—	—	230±5°C 3±0.5s	—
Dual-in-line Package Type	Resistance to soldering heat	Manual soldering		350±10°C 3 ⁺ ₀ ⁺ s		300±10°C 3 ⁺ ₀ ⁺ s	350±10°C 3 ⁺ ₀ ⁺ s		350°C max. 3s max.	350±10°C 3 ⁺ ₀ ⁺ s					—	—	350±10°C 3±0.5s	—		
Multi Control Devices		Dip soldering		260±5°C 5±1s	260±5°C 10±1s	260±5°C 5±1s		260±5°C 10±1s		260±5°C 5±1s		260±5°C 10±1s	260±5°C 5±1s	260°C max. 5s max.		—	—	260±5°C 10±1s	—	
TACT	Durability	Operating life without load				10,000 cycles 40mΩ max.		30,000 cycles 40mΩ max.	10,000 cycles 40mΩ max.	10,000 cycles 50mΩ max.	10,000 cycles 100mΩ max.	10,000 cycles 40mΩ max.	10,000 cycles 50mΩ max.		30,000 cycles 1Ω max.					
		Operating life with load Load : As rating				10,000 cycles 40mΩ max.		5,000 cycles 40mΩ max.	10,000 cycles 50mΩ max.	10,000 cycles 100mΩ max.	10,000 cycles 40mΩ max.	10,000 cycles 50mΩ max.		10,000 cycles 1Ω max.						
Horizontal Type	Environmental performance	Cold													-20±2°C for 96h			-40±2°C for 96h		
		Dry heat													85±2°C for 96h					
		Damp heat													40±2°C, 90 to 95%RH for 96h					

Attached Parts

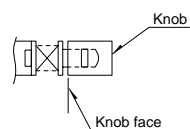
Specify the Desired Knob.

Unit : mm

Knob outline drawing	Variety		Series
	Color	Model	
	<p>Black Red White</p>	<p>UJ206022 UJ206020 UJ206026</p>	<p>SPPJ3 SPUJ</p>
<p>Key pitch 10mm</p> <p>Square knob</p>		<p>4093-1 4093-2 4093-3</p>	<p>SPPJ2 SPUP SPUN SPEC</p>
<p>Key pitch 12.5mm</p> <p>Square knob</p>		<p>UE201011 UE201012 UE201013</p>	
<p>Key pitch 15mm</p> <p>Square knob</p>		<p>UE202011 UE202012 UE202013</p>	
<p>Key pitch 17.5mm</p> <p>Square knob</p>		<p>UE203011 UE203012 UE203013</p>	
<p>Key pitch 20mm</p> <p>Square knob</p>		<p>UE204011 UE204012 UE204013</p>	
<p>Round knob</p>		<p>UE200011 UE200012 UE200013</p>	

Note

When mounting the switch, it is recommended to secure the knob with an adhesive agent.



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