

Push Switch

2.5mm-travel Vertical Type

SPEC Series

www.DataSheet4U.com



Vertical type, widely applicable to home and industrial electronic equipment.



Typical Specifications

Items		Specifications
Rating (max.)/(min.) (Resistive load)		0.1A 30V DC/50 μ A 3V DC
Contact resistance (Initial/After operating life)		30m Ω max./50m Ω max.
Operating force		2 $\pm$ 1N
Operating life	Without load	10,000cycles
	With load	10,000cycles (0.1A 30V DC)

Product Line

Changeover timing	Travel (mm)	Total travel (mm)	Rating	Mounting method	Poles	Operation	Terminal type	Minimum order unit (pcs.)	Product No.
Non shorting	2.5	3.4	—	PC board	2	Latching	Straight	2,000	SPEC121100
							Snap-in		SPEC121300

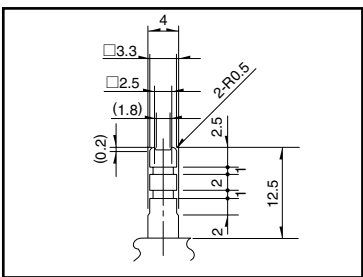
Dimensions

Unit:mm

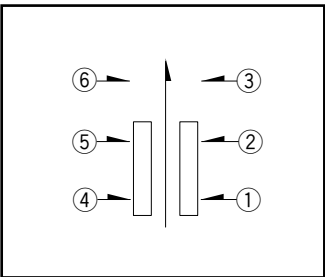
Style	PC board mounting hole dimensions (Viewed from the direction A)	
	Straight terminal 	Snap-in terminal

Actuator Configuration at Front Edge

Unit:mm



Circuit Diagram (Viewed from Direction A)



Terminal Configuration

Unit:mm

Straight terminal	Snap-in terminal

Notes

- Products other than those listed in the above chart are also available. Please contact us for details.
- Please place purchase orders per minimum order unit (integer).

List of Varieties

Series		SPPH4	SPPH1	SPEC	SPED2	SPED3	SPED4	SPED5	SPEF	
Photo										
Travel (mm)		2.2	1.5	2.5	—				1.5	
Total travel (mm)		3	2.5	3.4	4.5	3.8			2.7	
Number of poles		2				1				
Dimensions (mm)	W	8.5	10	12	14			13.5	9.4	
	D	6.5	10		16.8	18		18.2	9	
	H	8.5		12.5	26.7	20.7			6.9	
Operating temperature range		−10℃ to +60℃		−40℃ to +85℃						
Rating (max.) (Resistive load)		0.1A 30V DC				1A 14.5V DC				
Rating (min.) (Resistive load)		50μA 3V DC								
Electrical performance	Initial contact resistance	100mΩ max.	20mΩ max.	30mΩ max.	100mΩ max.					
	Insulation resistance	100MΩ min. 500V DC				3MΩ min. 500V DC			3MΩ min. 100VDC	
	Voltage proof	500V AC for 1minute				100V AC for 1minute				
Mechanical performance	Terminal strength	5N for 1minute		3N for 1minute						
	Actuator strength	Operating direction	30N	50N					90N	
		Pulling direction	10N	—	50N				30N	
Durability	Operating life without load	10,000cycles 100mΩ max.	10,000cycles 40mΩ max.	10,000cycles 50mΩ max.	30,000cycles 100mΩ max.					
	Operating life without load Load:as rating									
Environmental performance	Cold	−20±2℃ for 96h				−40±2℃ for 96h				
	Dry heat	85±2℃ for 96h								
	Damp heat	40±2℃, 90 to 95%RH for 96h								
Soldering	Manual soldering	350±10℃ 3 ⁺¹ ₀ s			350±10℃ 3±0.5s ※3	—	350±10℃ 3±0.5s	—	350±5℃ 3s max.	
	Dip soldering	260±5℃ 5±1s	260±5℃ 10±1s	260℃ max. 5s max.	260±5℃ 10±1s ※3	—	260±5℃ 10±1s	—	260±5℃10±1s ※4	
	Reflow soldering								Please see P.108	
Page		98	99	101	102	103			105	

● Push Switches Attached Parts107

● Push Switches Products Caution109

Notes

- ※3. Applicable to SPED220200 (PC board type) only.
- ※4. Applicable to SPEF110100 only.

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

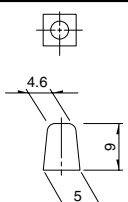
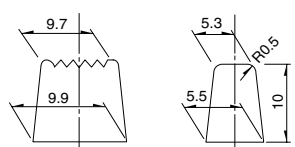
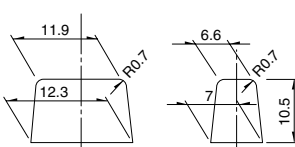
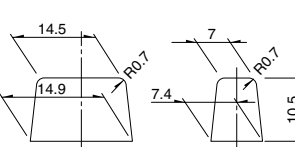
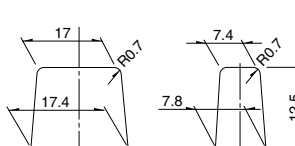
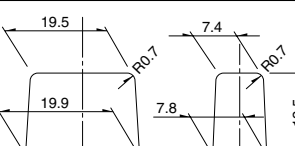
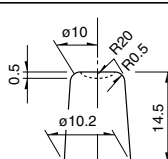
TACT Switch™

Custom-
ProductsHorizontal
TypeVertical
Type

Attached Parts

Please specify required knob.

Unit:mm

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

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products

Horizontal
Type

Vertical
Type

Note

We recommend the use of adhesive to secure the knob when mounting onto switches.

