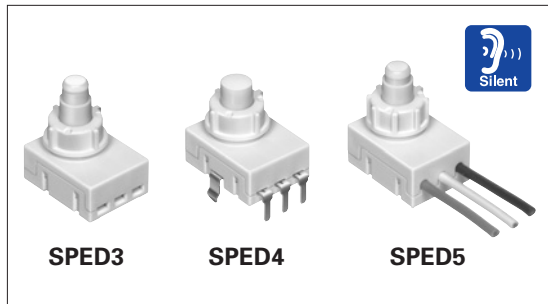


Push Switch 3.8mm-travel Push-push Type

SPED3/SPED4/SPED5 Series



Smooth and linear operation feeling.



Features

- A mid-size version of in our SPED2 series.
- Smooth and linear operation feeling achieved from ratchet cam structure.
- Near-silent operation contributes to improved comfort in the car interior.
- Only 4 pushes in one cycle (conventional products 6-8 times) contributing to VA.

Applications

- For ON/FF switching in in-car map lamps

Typical Specifications

Items	Specifications
Ratings	1A 14.5V DC
Contact resistance (Initial performance)	100mΩ max.
Operating force	4.17±0.74N
Operating life (Without load)	30,000cycles
Circuit configuration	1-pole, 2-positions
Travel	3.8mm

Product Line

Changeover timing	Travel (mm)	Total travel (mm)	Mounting method	Rating	Poles	Operation	Terminal style	Minimum packing unit (pcs.)	Product No.	Drawing No.
Non shorting	—	3.8	Connector	—	1	Alternate	—	100	SPED310200	1
			PC board				For PC board	280	SPED420200	2
			With wire F				—	240	SPED530202	3

Note

※ Contact us for lead length variations.

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

Multi Control
Devices

TACT Switch™

Custom-
Products

Horizontal
Type

Vertical
Type

Refer to P.105 for product specifications.

Product Specifications

Series		SPEE	SPPJ6	SPPJ2	SPPJ3	SPUJ SPUP F1	SPUN F1	SPUN (medium current) F1	SPPH2	SPPH4	SPPH1	SPEA	SPEC	SPED2	SPED3	SPED4	SPED5	SPEF			
Operating temperature range		-10°C to +60°C		-40°C to +85°C		-10°C to +60°C					-40°C to +85°C		-10°C to +60°C		-40°C to +85°C						
Rating (max.) (Resistive load)		5V 20mA		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				
Electrical performance	Initial contact resistance	※2		20mΩ max.					30mΩ max.		100mΩ max.		20mΩ max.		30mΩ max.		100mΩ max.				
	Insulation resistance	10mΩ min. 100V DC		100MΩ min. 500V DC															3MΩ min. 500V DC		3MΩ min. 100V DC
	Voltage proof	100V AC for 1minute		500V AC for 1minute												100V AC for 1minute			100V AC for 1minute		
Mechanical performance	Terminal strength		—		5N for 1minute							3N for 1minute		—							
	Actuator strength	Operating direction	50N		30N		50N			30N		50N					90N				
		Pulling direction	—		24.6350N			—		10N	—		50N		—			30N			
	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																		
	Resistance to soldering heat	Manual soldering	350±10°C 4±0s		350±10°C 3 ⁺¹ ₀ s		300±10°C 3 ⁺¹ ₀ s		350±10°C 3 ⁺¹ ₀ s		350°C max. 3s max.	350±10°C 3 ⁺¹ ₀ s			350±10°C 3±0.5s		—	350±10°C 3±0.5s		—	350±5°C 3s max.
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±5°C 10±1s	260±5°C 5±1s	260°C max. 5s max.	260±5°C 10±1s		—	260±5°C 10±1s		—	260±5°C 10±1s
Reflow		Please see P.107		—															Please see P.107		
Durability	Operating life without load		100,000 cycles		10,000 cycles 40mΩ max.			30,000cycles 40mΩ max.	10,000cycles 40mΩ max.	10,000cycles 50mΩ max.	10,000cycles 100mΩ max.	10,000cycles 40mΩ max.	10,000cycles 50mΩ max.		30,000cycles 100Ω max.						
	Operating life with load Load : As rating		100,000 cycles		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.		30,000cycles 100mΩ max.							
Environmental performance	Cold		-40±2°C for 96h		-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																		

Detector

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Dual-in-line Package Type

Multi Control Devices

TACT Switch™

Custom-Products

Horizontal Type

Vertical Type

Notes

1. F 1. The operating temperature range for automotive applications can be raised upon request. Please contact us for requirements of this kind.
2. F 2. 1V or less, at the present rating of 1mA, 5V DC for output voltage.