3.8mm-travel Push Switch(Push-push Type)

SPED3 Series

The height is 20.7 mm with noise reduction and linear touch sensation during operation.

NEW

Car Use

Features

- Variety with a middle size of 20.7 mm (H) in our existing SPED2 Series of products.
- By the adoption of the ratchet cam structure, a smooth, linear operation is obtained.
- Succeeds in reducing the sound from the operation. Contributes to the improvement in conformability of the vehicle interior.
- Structure with four pushes per cycle (Usually 6-8 times per cycle for the conventional from other companies) contributes to customer's VA process.

Applications

- ON/OFF switches for a map lamp in motor vehicles

Typical Specifications

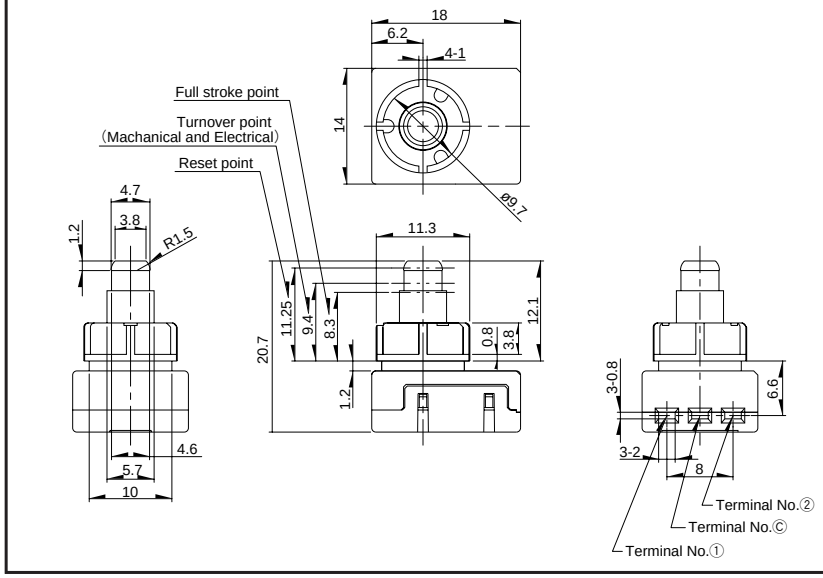
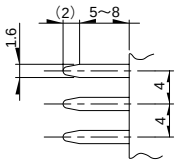
Items	Specifications
Ratings	1A 14.5V DC
Contact resistance (Initial performance)	100mΩ max.
Operating force	4.17±0.74N
Operating life	30,000 cycles
Circuit arrangement	1-pole, 2-position
Travel	3.8mm

Products Line

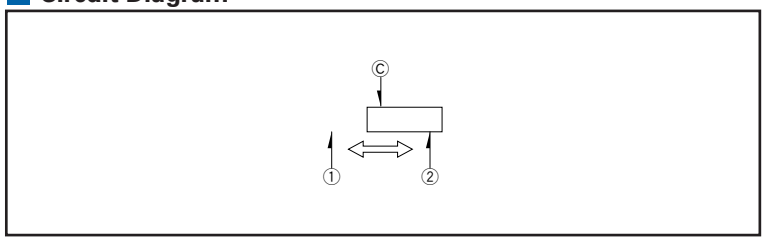
Changeover timing	Total travel (mm)	Mounting method	Poles	Operating	Terminal style	Minimum packing unit (pcs.)	Products No.
Non shorting	3.8	Connector	1	Alternate	—	100	SPED310200

Dimensions

Unit : mm

Style	Reference dimension of connection terminal (T=0.5~0.65mm)
	

Circuit Diagram



Note

Factory setting for contact points can be either ① or ②.

Products Specifications

Item \ Series			SPPJ6	SPPJ2	SPPJ3	SPUJ SPUP	SPUN	SPUN (medium current)	SPPH2	SPPH4	SPPH1	SPEA	SPEC	SPED1	SPED2	SPED3
Operating temperature range			−10˚C to +60˚C											−40˚C to +85˚C		
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		
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		
	Voltage proof		500V AC for 1 min.											100V AC for 1 min.		
Mechanical performance	Robustness of terminal		5N for 1 min.									3N for 1 min.		—		
	Robustness of actuator	Operating direction	50N	30N		50N			30N		50N					
		Pulling direction	———			50N			—	10N	—	50N		—		
	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˚C、3±0.5s											—	–	230±5˚C 3±0.5s —
	Resistance to soldering heat	Manual soldering	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 —
		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 —
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.		
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													