

Sealed Sub-Miniature Pushbutton Switches - PUMS series



SPECIFICATIONS

CONTACT RATING: Dependent upon contact material. See [Contact Plating & Ratings](#).

MECHANICAL LIFE: 50,000 make-and-break cycles.

CONTACT RESISTANCE: 20 mΩ max. initial @ 2-4VDC
100mA for both silver and gold plated contacts.

INSULATION RESISTANCE: 1,000 MΩ min.

models available,
consult sales representatives.

DIELECTRIC STRENGTH: 1,000 Vrms min. @ sea level.

OPERATING TEMPERATURE: PC mount type: -40°C to 85°C.

Surface mount type: -30°C to 85°C.

DEGREE OF PROTECTION: IP67

MATERIALS

CASE & BUSHING: Glass filled nylon 6/6, flame retardand, heat stabilized (UL94V-0).

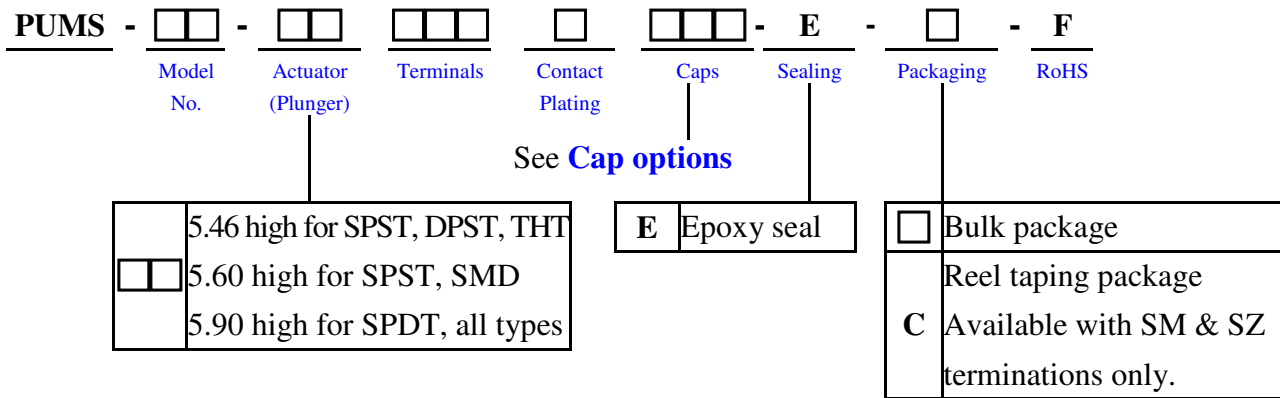
PLUNGER: Thermoplastic Polyester (UL 94V-0), with intenal O-ring seal.

SWITCH SUPPORT: PC mount type: Brass or steel electrotin plated.

Surface mount type: Brass, tin plated.

CONTACT: Copper alloy, with silver or gold plated. See [Contact Plating & Ratings](#).

PART NUMBERING SYSTEM



Model No./ Switching function ()= Momentary

Unit: Inch/ mm

SPST		Part No. Shown: PUMS-S9-M2 <input type="checkbox"/> E-F		P. C. B. Layout
Model No.	Switching function	SPST		
S9	Off (On)			
Connected terminals	Open 1-3			
Schematic				

Sealed Sub-Miniature Pushbutton Switches - PUMS series



Model No./ Switching function ()= Momentary

Unit: Inch/ mm

SPDT		Part No. Shown: PUMS-S8-M2□E-F	P. C. B. Layout
Model No.	Switching function	SPDT	
S8	On (On)		
Connected terminals	2-1 2-3		
Schematic			

DPST		Part No. Shown: PUMS-D9-M2□E-F	P. C. B. Layout
Model No.	Switching function	DPST	
D9	Off (On)		
Connected terminals	Open 1-3,4-6		
Schematic			

Terminations & Sealing

Unit: Inch/ mm

M1 Solder 	M2 PCB 	M51 Wire wrap
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M6 Right angle P.C. Mount

Part No. Shown: PUMS-S9-M6□E-F SPST	P. C. B. Layout

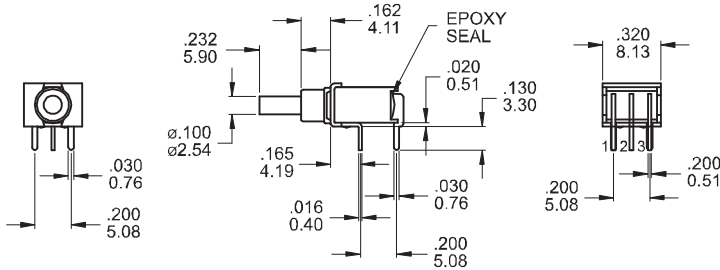


Terminations & Sealing

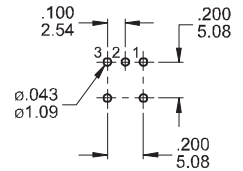
Unit: Inch/ mm

M6 Right angle P.C. Mount

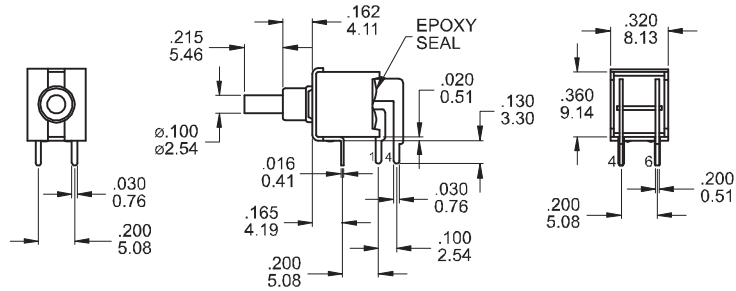
Part No. Shown: PUMS-S8-M6□E-F
SPDT



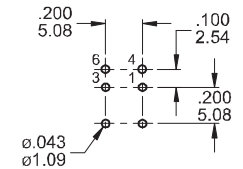
P. C. B. Layout



Part No. Shown: PUMS-D9-M6□E-F
DPST

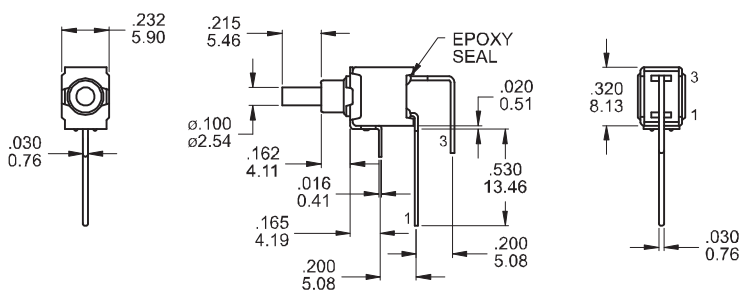


P. C. B. Layout

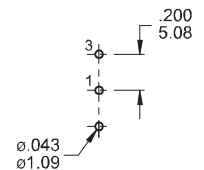


M7 Vertical right angle P.C. Mount

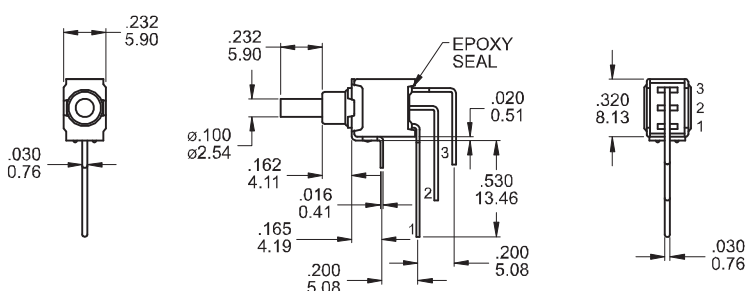
Part No. Shown: PUMS-S9-M7□E-F
SPST



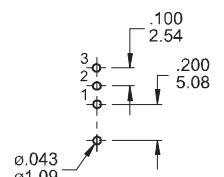
P. C. B. Layout



Part No. Shown: PUMS-S8-M7□E-F
SPDT



P. C. B. Layout





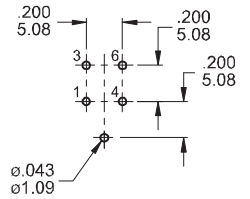
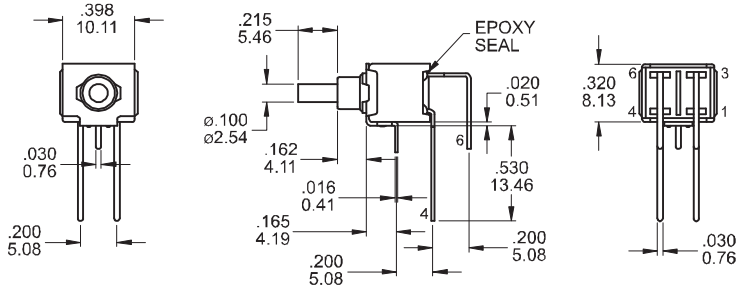
Terminations & Sealing

Unit: Inch/ mm

M7 Vertical right angle P.C. Mount

Part No. Shown: PUMS-D9-M7□E-F
DPST

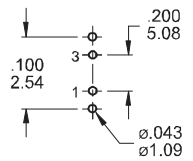
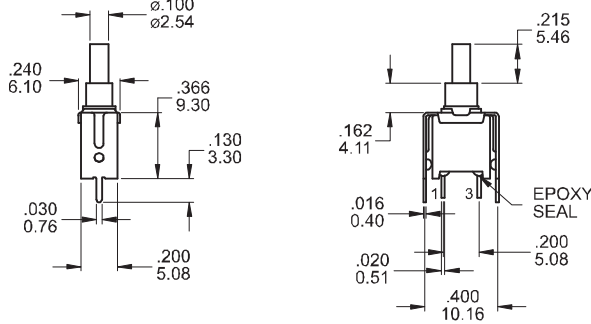
P. C. B. Layout



V2 Vertical bracket P.C. Mount

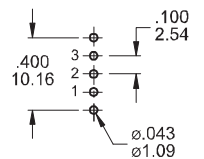
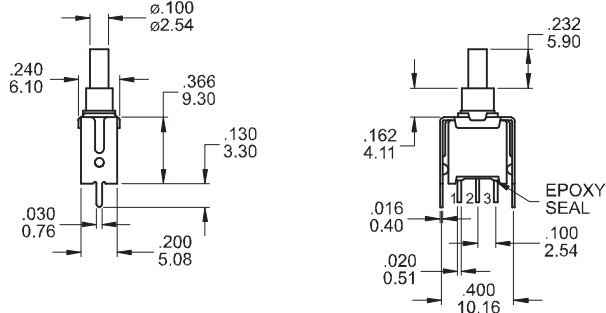
Part No. Shown: PUMS-S9-V2□E-F
SPST

P. C. B. Layout



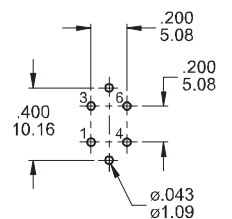
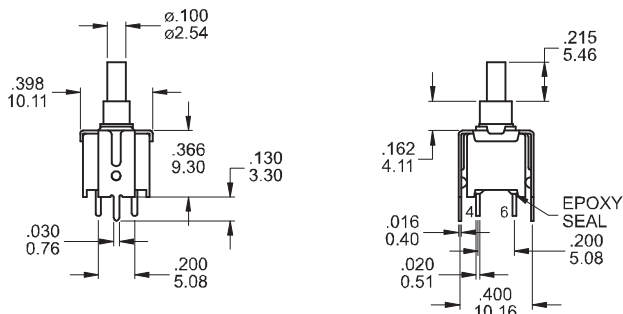
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SPDT

P. C. B. Layout



Part No. Shown: PUMS-D9-V2□E-F
DPST

P. C. B. Layout



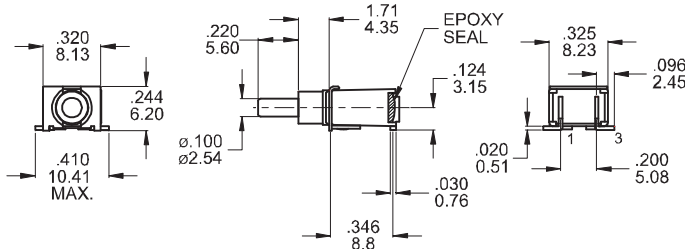


Terminations & Sealing

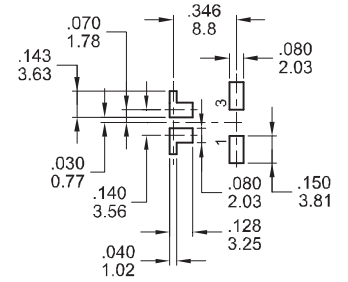
Unit: Inch/ mm

S Surface Mount

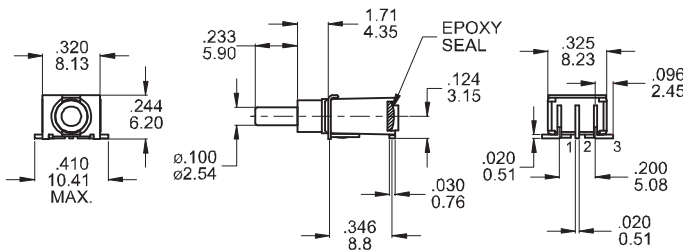
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SPST



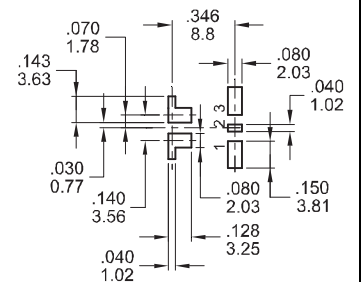
P. C. B. Layout



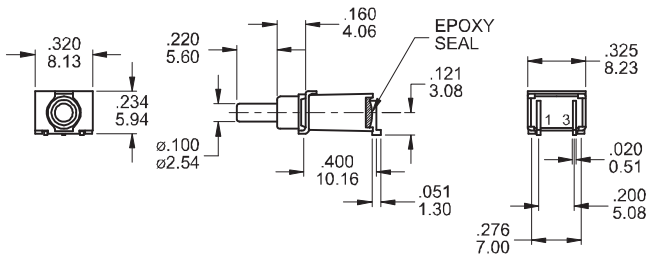
Part No. Shown: PUMS-S8-SM E- -F
SPDT



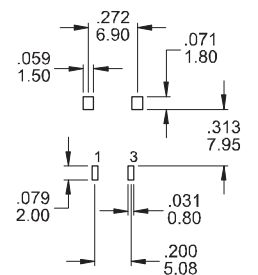
P. C. B. Layout



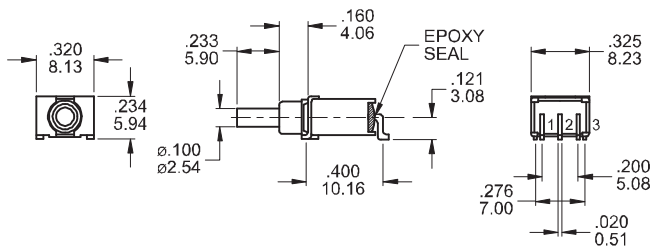
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SPST



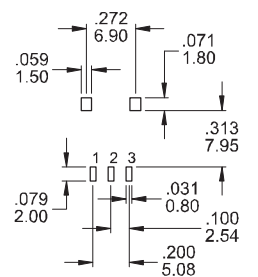
P. C. B. Layout



Part No. Shown: PUMS-S8-SZ E- -F
SPDT



P. C. B. Layout





Contact Plating & Ratings

Option code	Contact plating	Terminal plating	Ratings
G	Gold	Gold	0.4 Volt-Amps (VA) max. @ 20V max. (AC or DC)
S	Silver	Gold flash over silver	3 Amps with resistant load @ 120VAC or 28VDC 1 Amps with resistant load @ 250VAC
A	Gold over silver	Gold over silver	

SOLDERING PROCESSES(For PC Mount type)

Manual soldering: Use soldering iron of 30 watts, controlled at 350°C approximately 5 seconds while applying solder.

Wave soldering: Recommended soldering temperature: 270 ± 5°C.

Duration of solder immersion: Max 5 sec. (PCB is 1.6mm in thickness).

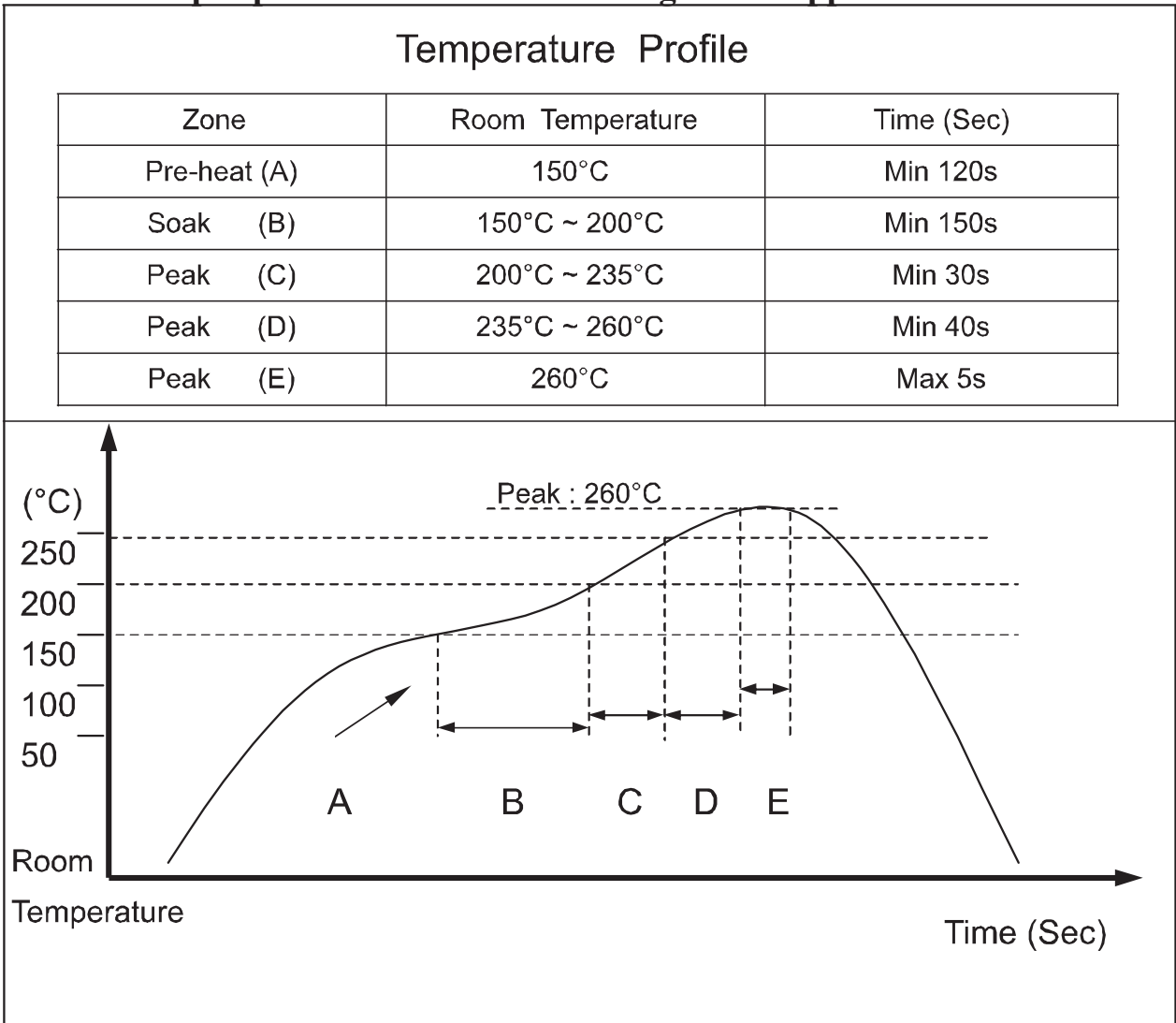
SOLDERING PROCESSES(For Surface Mount type)

Manual soldering: Use soldering iron of 30 watts, controlled at 350°C approximately 5 seconds while applying solder.

Wave soldering: Recommended soldering temperature: 260 ± 5°C.

Duration of solder immersion: Max 5 sec. (PCB is 1.6mm in thickness).

SOLDERING: Vapor phase & IR-reflow soldering can be applied.





Cap options

Unit: Inch/ mm

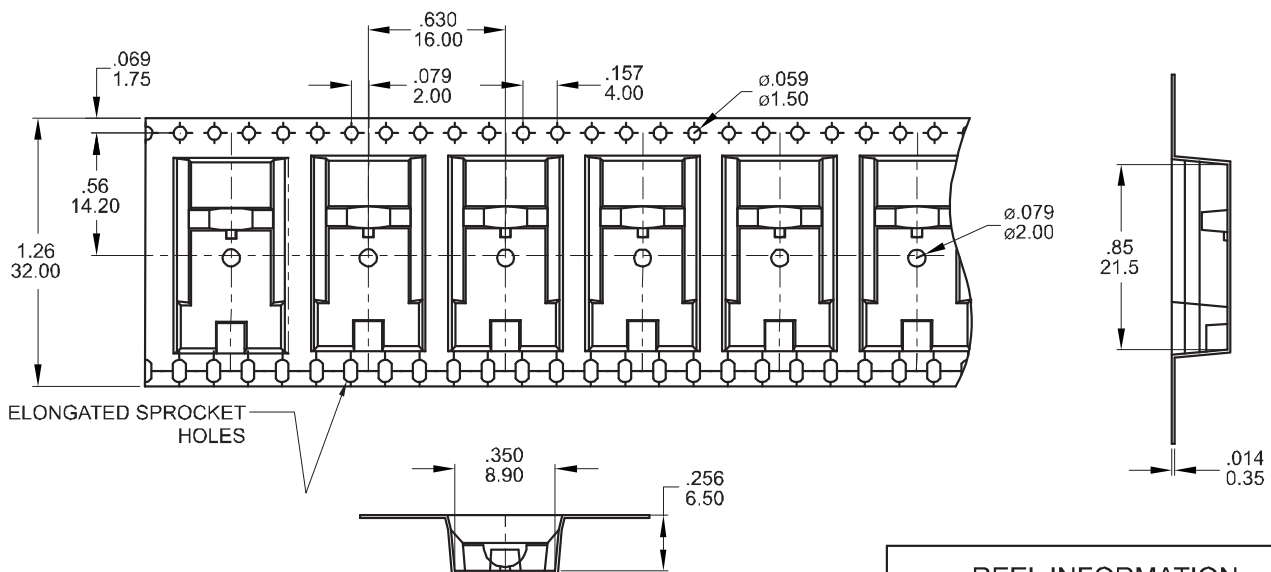
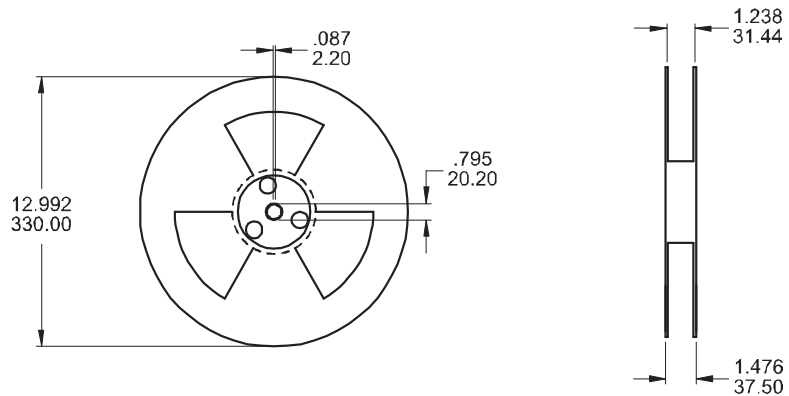
C1 <input type="checkbox"/>	C2 <input type="checkbox"/>	Cap color (Besides standard color, other colors need to check stocks available.)			
		<input type="checkbox"/>	Plunger only	5	Yellow
		1	White	6	Green
		2	Black(STD.)	7	Blue
		3	Red	8	Brown
		4	Orange	9	Gray

Packaging for Surface Mount(SM·SZ) type only

Unit: Inch/ mm

Switches available on embossed antistatic tape and reels.

Tape and cover strip are conductive for use near statically sensitive components.



ELONGATED SPROCKET HOLES

REEL INFORMATION	
QUANTITY PER REEL	500 / pcs