

## SPECIFICATIONS

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

**MECHANICAL LIFE:** 30,000 make-and-break cycles.

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

**INSULATION RESISTANCE:** 1,000 MΩmin.

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

**OPERATING TEMPERATURE:** -40°C to 85°C.

**DEGREE OF PROTECTION:** IP67

models available,  
consult sales representatives.

## MATERIALS

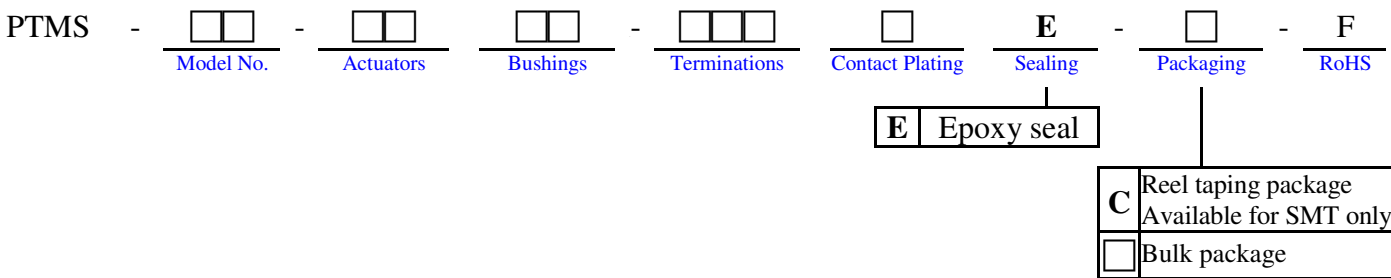
**CASE & BUSHING:** Glass filled nylon 6/6, flame retardant, heat stabilized (UL94v-0).

**ACTUATOR:** Brass, chrome plated, internal O-ring seal. Standard for all actuators.

**SWITCH SUPPORT:** Brass, tin plated.

**CONTACT / TERMINAL:** Copper alloy with Silver or gold plated. See [Contact Plating & Ratings](#).

## PART NUMBERING SYSTEM



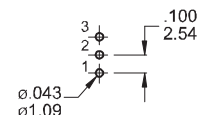
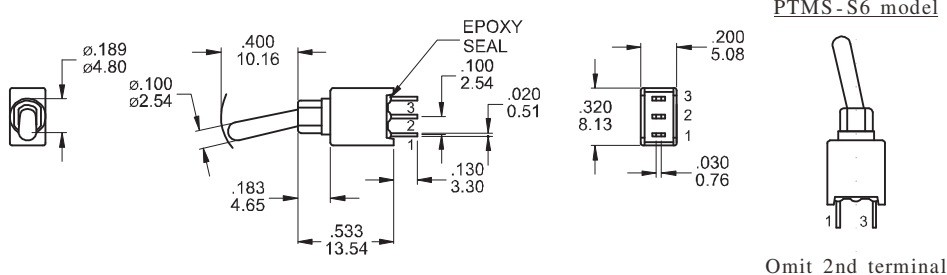
**Model No./ Switching function** ( )= Momentary

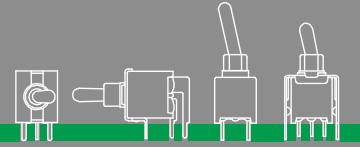
Unit: Inch/ mm

SPST				SPDT				SPDT			
Model No.	Switching function			Model No.	Switching function			Model No.	Switching function		
<b>S6</b>	Off	None	On	<b>S1</b>	On	None	On	<b>S2</b>	On	Off	On
Connected terminals	Open	N/A	3-1	<b>S3</b>	On	None	(On)	<b>S4</b>	(On)	Off	(On)
Schematic								<b>S5</b>	On	Off	(On)
				Connected terminals	2-3	N/A	2-1	Connected terminals	2-3	Open	2-1
				Schematic				Schematic			

Part No. Shown: PTMS-S  -T1B1-M2  E-F  
SPST & SPDT

## P. C. B. Layout





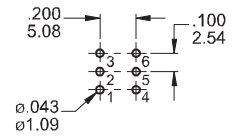
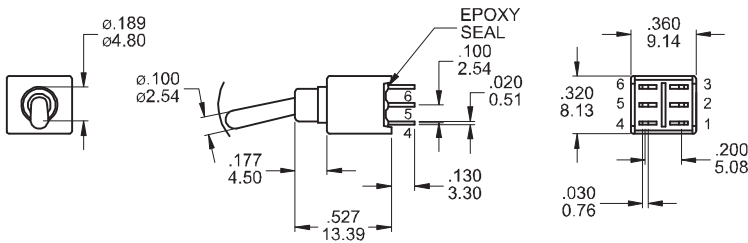
**Model No./ Switching function** ( )= Momentary

Unit: Inch/ mm

DPDT				DPDT			
Model No.	Switching function			Model No.	Switching function		
<b>D1</b>	On	None	On	<b>D2</b>	On	Off	On
<b>D3</b>	On	None	(On)				
Connected terminals	2-3,5-6	N/A	2-1,5-4	Connected terminals	2-3,5-6	Open	2-1,5-4
Schematic				Schematic			

Part No. Shown: PTMS-D□-T1B3-M2□E-F  
DPDT

**P. C. B. Layout**



**Actuators**

Unit: Inch/ mm

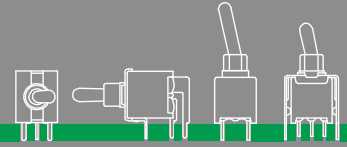
<b>T1</b>	<b>T2</b>	<b>T3</b>	<b>T4</b>	<b>T5</b> Plastic actuator	<b>T6</b> Plastic actuator

Actuator shown with **B1** Bushing, sub .020 (0.50) for **B2** Bushing.

**Bushings**

Unit: Inch/ mm

SPDT		DPDT	
<b>B1</b>	<b>B2</b>	<b>B3</b>	<b>B3</b>



## Terminations & Sealing

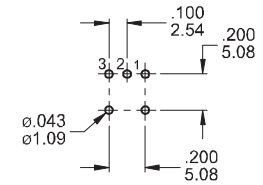
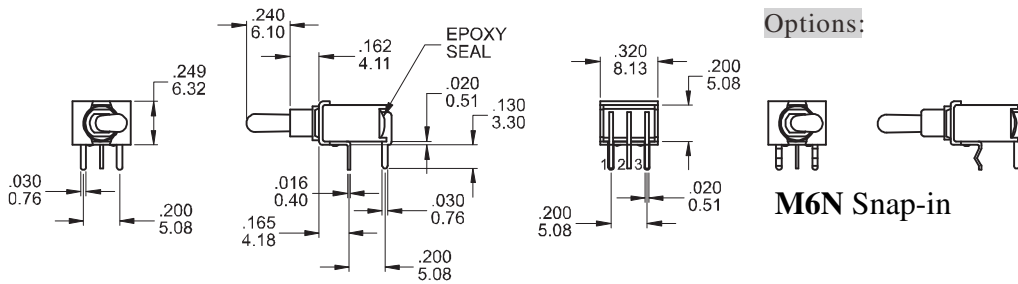
Unit: Inch/ mm

<b>M2□E</b> PCB through hole, with epoxy seal	<b>M51□E</b> Wire wrap, With epoxy seal

## M6□ Right angle P.C. Mount

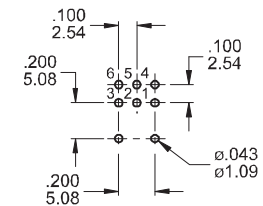
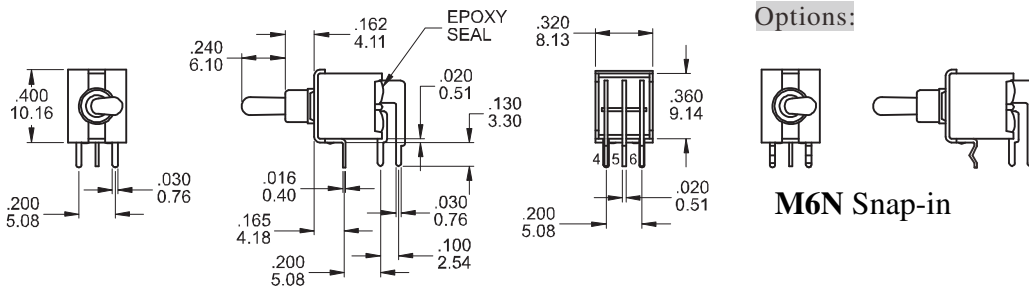
Part No. Shown: PTMS-S□-T2B1-M6□□E-F  
SPDT

### P. C. B. Layout



Part No. Shown: PTMS-D□-T2B3-M6□□E-F  
DPDT

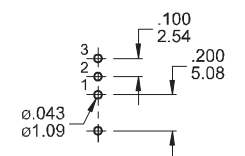
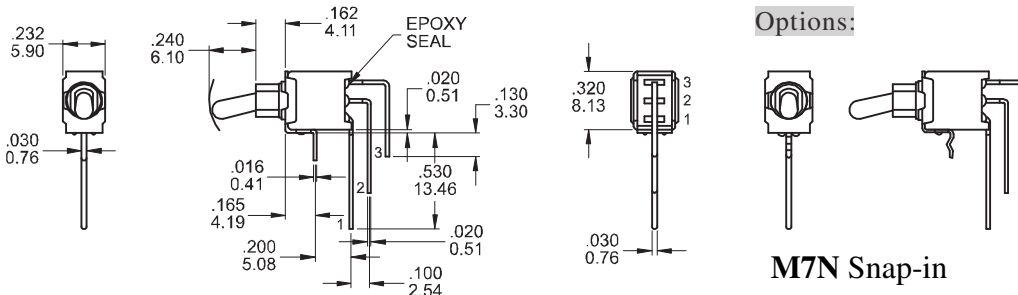
### P. C. B. Layout

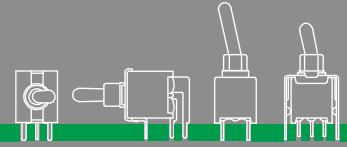


## M7□ Vertical right angle P.C. Mount

Part No. Shown: PTMS-S□-T2B1-M7□□E-F  
SPDT

### P. C. B. Layout





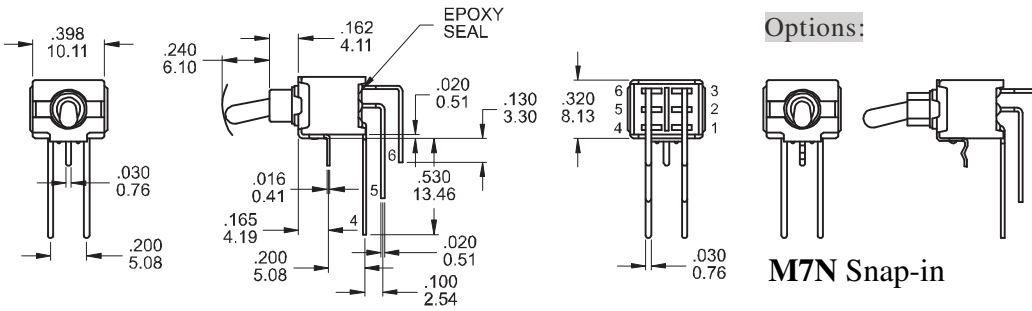
## Terminations & Sealing

Unit: Inch/ mm

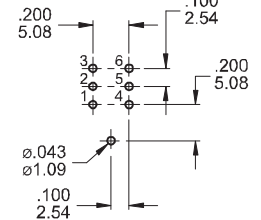
### M7 Vertical right angle P.C. Mount

Part No. Shown: PTMS-D-T2B3-M7-E-F

DPDT



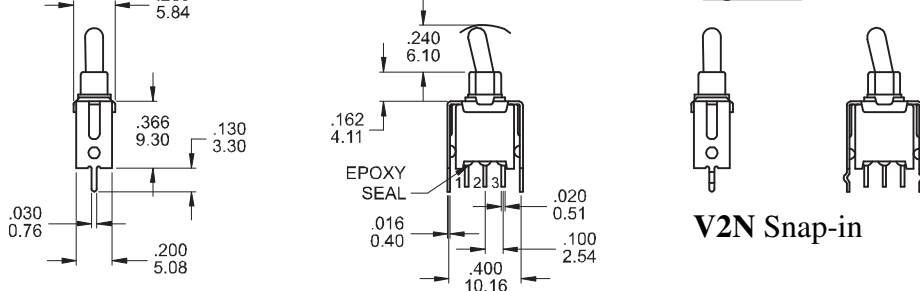
### P. C. B. Layout



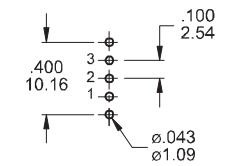
### V Vertical bracket P.C. Mount

Part No. Shown: PTMS-S-T2B1-V2-E-F

SPDT

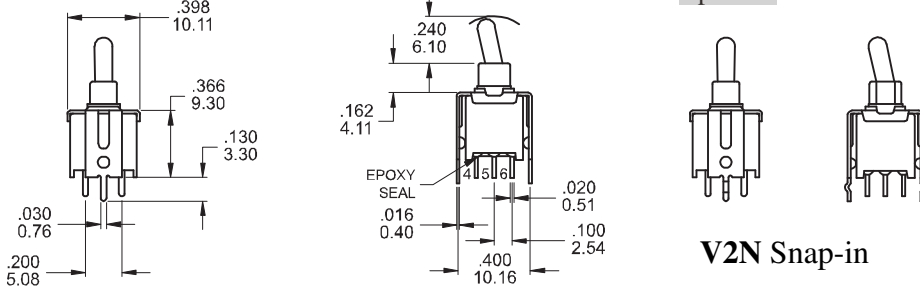


### P. C. B. Layout

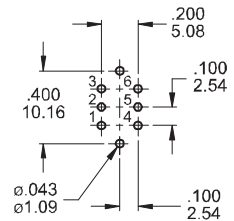


Part No. Shown: PTMS-D-T2B3-V2-E-F

DPDT



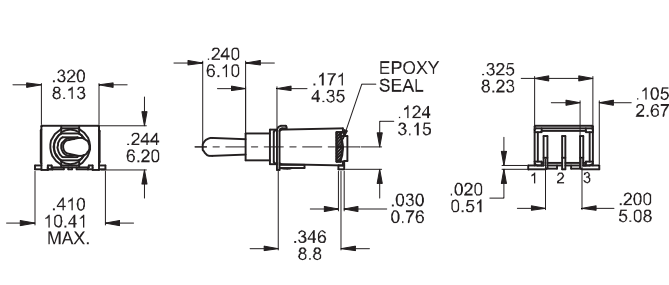
### P. C. B. Layout



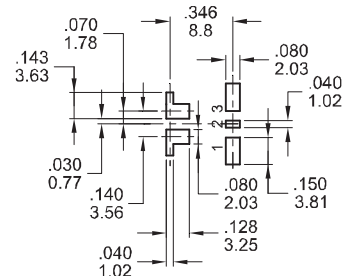
### SM Surface Mount

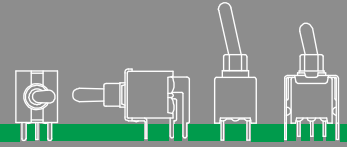
Part No. Shown: PTMS-S-T2B1-SM-E-F

SPDT



### P. C. B. Layout





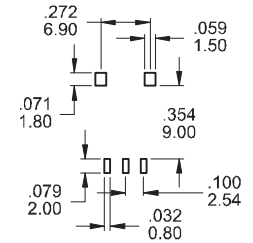
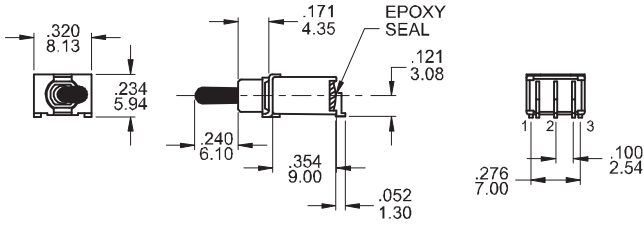
## Terminations & Sealing

Unit: Inch/ mm

### SZ Surface Mount

Part No. Shown: PTMS-S  -T5B1-SZ  E-F  
SPDT

### P. C. B. Layout



## Contact Plating & Ratings

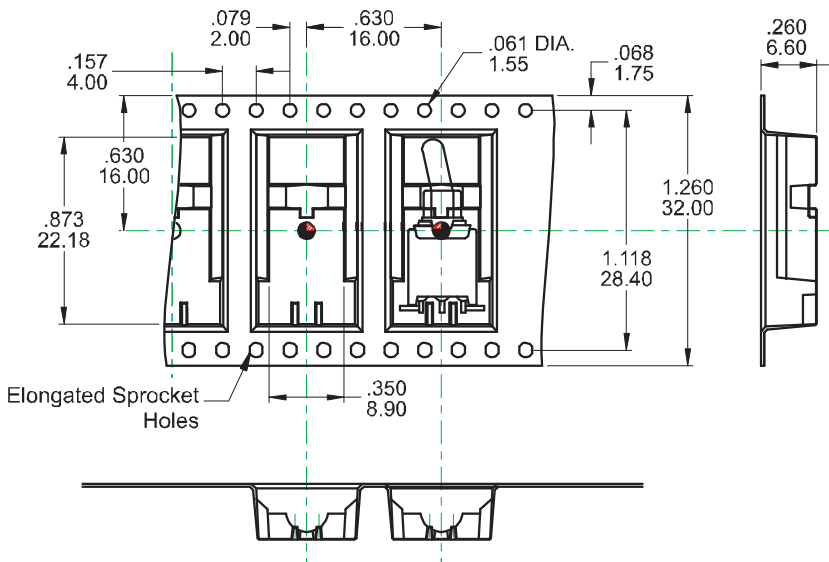
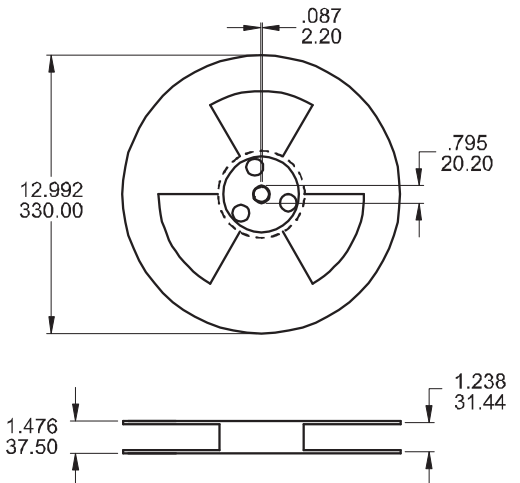
Option code	Contact plating	Terminal plating	Ratings
<b>G</b>	Gold	Gold	0.4 Volt-Amps ( VA ) max. @ 20V max. ( AC or DC )
<b>S</b>	Silver	Gold flash over silver	3 Amps with resistant load @ 120VAC or 28VDC
<b>A</b>	Gold over silver	Gold over silver	1 Amps with resistant load @ 250VAC

## Packaging for Surface Mount(SM·SZ) type only

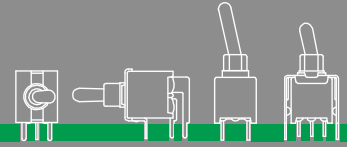
Unit: Inch/ mm

Switches available on embossed antistatic tape and reels.

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



REEL INFORMATION	
QUANTITY PER REEL	500 / pcs



### 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)

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.**

## Temperature Profile

Zone	Room Temperature	Time (Sec)
Pre-heat (A)	150°C	Min 120s
Soak (B)	150°C ~ 200°C	Min 150s
Peak (C)	200°C ~ 235°C	Min 30s
Peak (D)	235°C ~ 260°C	Min 40s
Peak (E)	260°C	Max 5s

