

## SPECIFICATIONS

**CONTACT RATING:** Max 0.4 VA max @ 48 VAC or DC

**MECHANICAL LIFE:** minimum 40,000 operations.

**CONTACT RESISTANCE:** 50 mΩ max.

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

**DIELECTRIC STRENGTH:** 500 Vrms min. @ sea level.

**OPERATING TEMPERATURE:** -20°C to 85°C.

**DEGREE OF PROTECTION:** IP67

## MATERIALS

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

**BUSHING & HOUSING:** SPCC

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

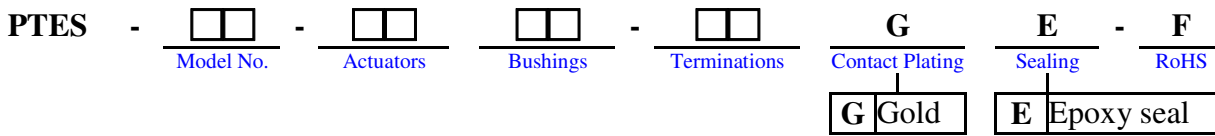
**SWITCH SUPPORT:** Brass,tin plated.

**CONTACT:** Phosphor bronze gold - plated over nickel barrier.

**TERMINAL:** Brass,gold plated.

**TERMINAL SEAL:** Epoxy

## PART NUMBERING SYSTEM

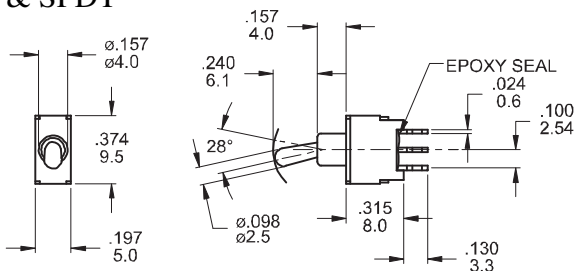


**Model No./ Switching function** ( )= Momentary

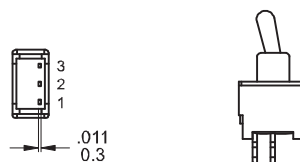
Unit: Inch/ mm

SPST				SPDT				SPDT			
Model No.	Switching function			Model No.	Switching function			Model No.	Switching function		
<b>S9</b>	Off	None	On	<b>S1</b>	On	None	On	<b>S2</b>	On	Off	On
				<b>S3</b>	On	None	(On)	<b>S4</b>	(On)	Off	(On)
								<b>S5</b>	On	Off	(On)
Connected terminals	Open	N/A	2-1	Connected terminals	2-3	N/A	2-1	Connected terminals	2-3	Open	2-1
Schematic				Schematic				Schematic			

Part No. Shown: PTES-S  -T1B1-M2GE-F  
SPST & SPDT

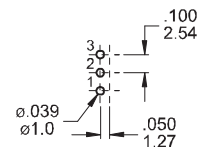


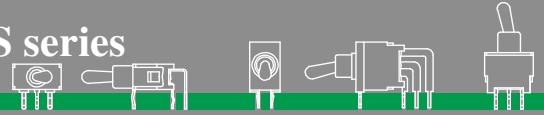
PTES-S9 model



Omit 3<sup>rd</sup> terminal

## P. C. B. Layout



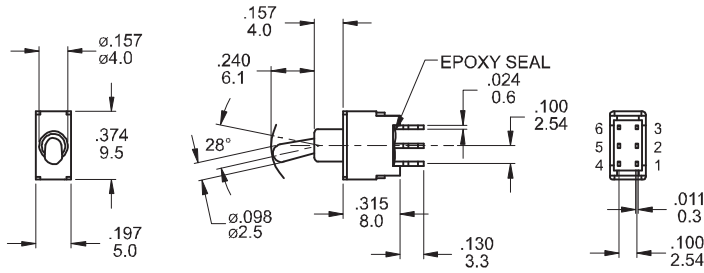


**Model No./ Switching function** ( )= Momentary

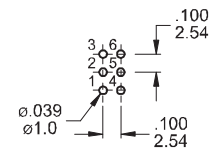
Unit: Inch/ mm

DPDT			DPDT				
Model No.	Switching function		Model No.	Switching function			
<b>D1</b>	On	None	On	On	Off	On	
<b>D3</b>	On	None	(On)	(On)	Off	(On)	
			<b>D5</b>	On	Off	(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: PTES-D□-T1B1-M2GE-F  
DPDT



**P. C. B. Layout**

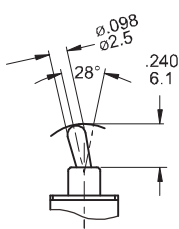


**Actuators**

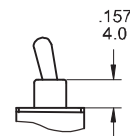
**Bushings**

Unit: Inch/ mm

**T1**



**B1**



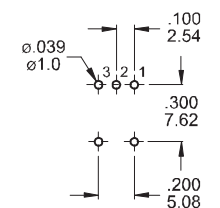
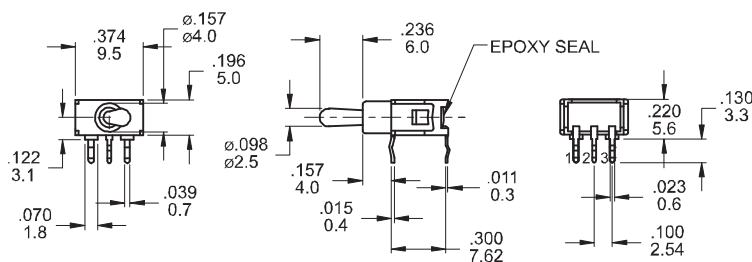
**Terminations & Sealing**

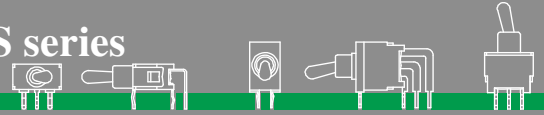
Unit: Inch/ mm

**M6□ Right angle P.C. Mount**

Part No. Shown: PTES-S□-T1B1-M6GE-F  
SPDT

**P. C. B. Layout**



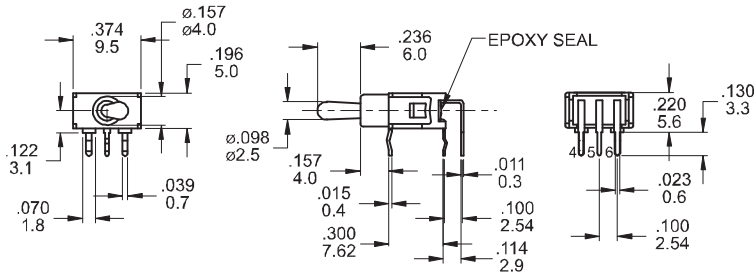


## Terminations & Sealing

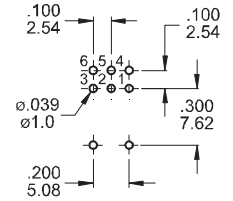
Unit: Inch/ mm

### M6 Right angle P.C. Mount

Part No. Shown: PTES-D-T1B1-M6GE-F  
DPDT

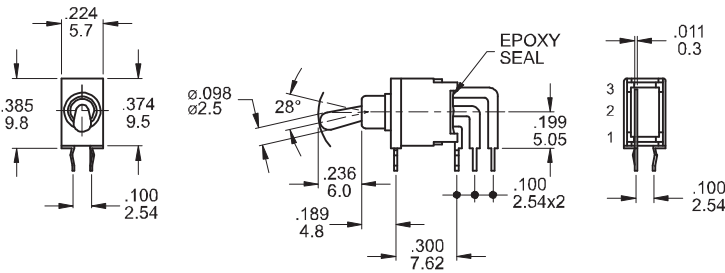


### P. C. B. Layout

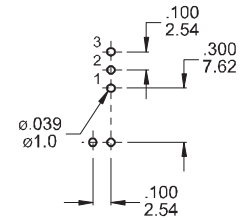


### M7 Vertical right angle P.C. Mount

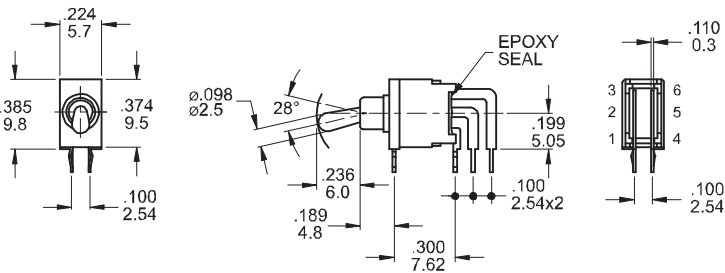
Part No. Shown: PTES-S-T1B1-M7GE-F  
SPDT



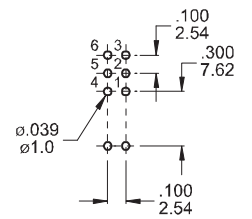
### P. C. B. Layout



Part No. Shown: PTES-D-T1B1-M7GE-F  
DPDT



### P. C. B. Layout



## SOLDERING PROCESSES

WAVE SOLDERING: Recommended Soldering Temperature:  $260 \pm 5^\circ\text{C}$

Duration of Solder Immersion: Max 5 sec.(PCB is 1.6mm in thickness)