

# 2A Series

## Sealed Sub-Miniature Toggle Switches



### SPECIFICATIONS

**CONTACT RATING:** Dependent upon contact material See page 30.

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

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

**INSULATION RESISTANCE:** 1,000MΩ min.

**DIELECTRIC STRENGTH:** 1,000 V RMS@sea level.

**OPERATING TEMPERATURE:** -30°C to 85°C.

### MATERIALS

**CASE & BUSHING** - Glass filled nylon 66, flame retardant, heat stabilized ( UL 94V-0 )

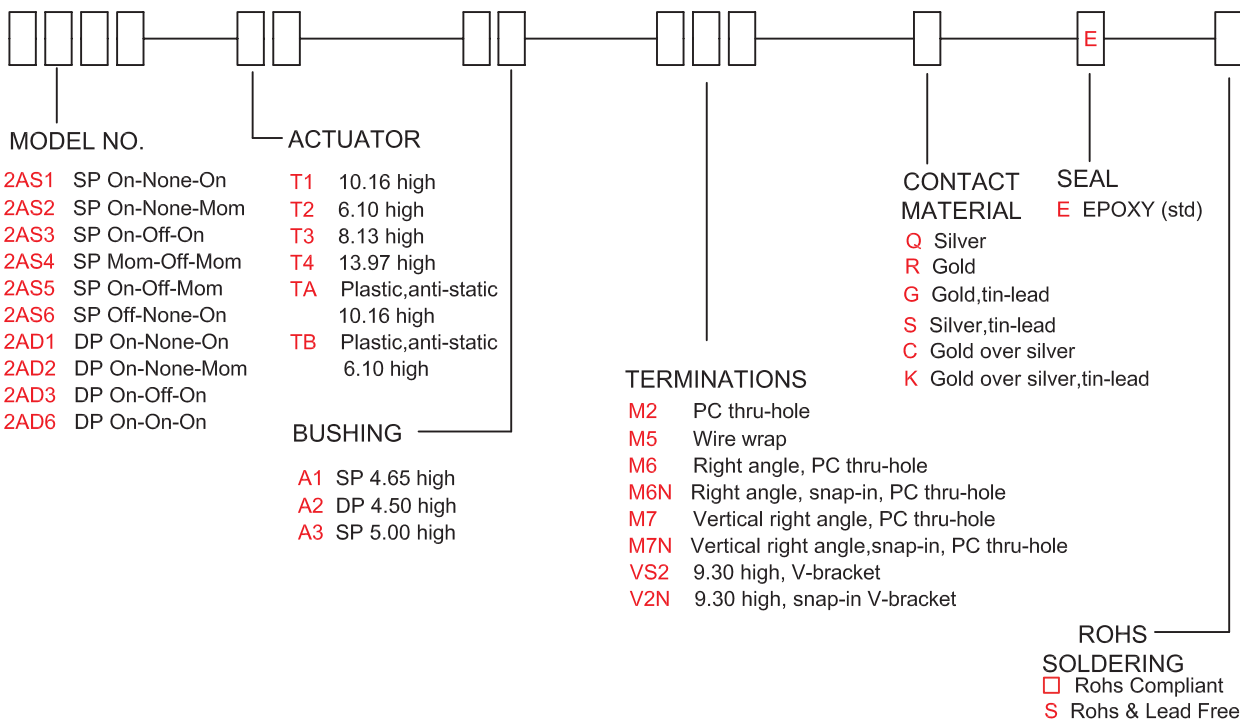
**ACTUATOR** - Brass, chrome plated, internal O-ring seal. Standard for all actuators.

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

**CONTACT/TERMINALS** - Copper alloy with silver or gold plated. See Page 30.

## HOW TO ORDER

MODEL NO.      ACTUATOR      BUSHING      TERMINATIONS      CONTACT MATERIAL      SEAL      ROHS SOLDERING



## SWITCH FUNCTION

NO. POLES	UL/CSA MODEL NO.	MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS / SCHEMATIC		
			POS.1	POS.2	POS.3	POS.1	POS.2	POS.3
SP	Q22A11	2AS1	ON	NONE	ON	2-3 	N/A	2-1 
	Q22A12	2AS2	ON	NONE	MOM			
	Q22A13	2AS3	ON	OFF	ON			
	Q22A14	2AS4	MOM	OFF	MOM	OPEN 	OPEN	
	Q22A15	2AS5	ON	OFF	MOM			
	Q22A16	2AS6	OFF	NONE	ON	OPEN	N/A	3-1
DP	Q22A21	2AD1	ON	NONE	ON	2-3,5-6 	N/A	2-1,5-4 
	Q22A22	2AD2	ON	NONE	MOM			
	Q22A23	2AD3	ON	OFF	ON	OPEN 	OPEN	
	Q22A26	2AD6	ON	ON	ON			

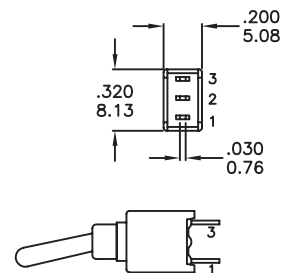
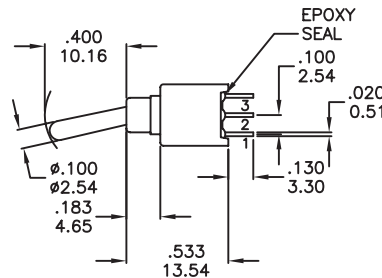
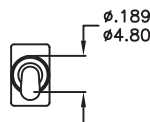
MOM=MOMENTARY

## POLE OPTIONS



SPDT

Part No. Shown : 2AS1T1A1M2RE

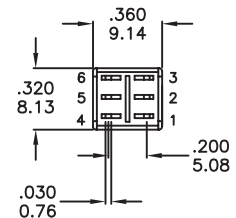
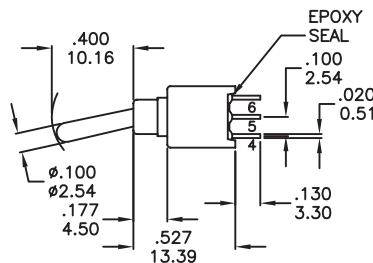
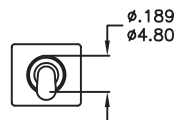


2AS6 Models : Omit 2nd terminal



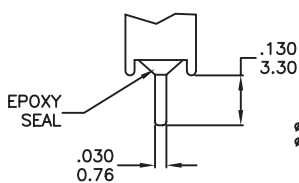
DPDT

Part No. Shown : 2AD1T1A2M2RE

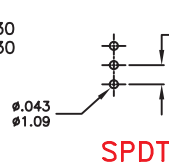


## TERMINATION OPTIONS

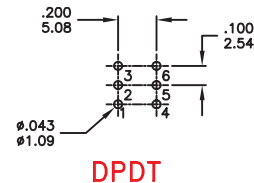
### M2



### P.C. MOUNTING



SPDT



DPDT

### OTHER TERMINATION OPTIONS

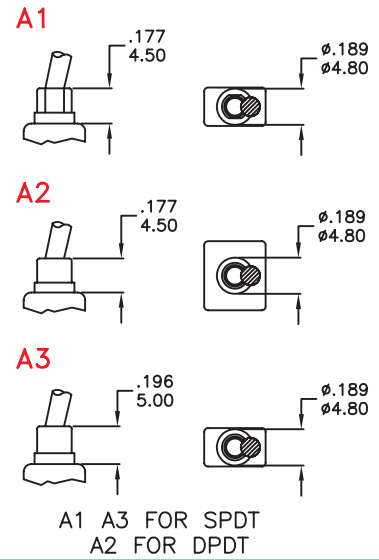
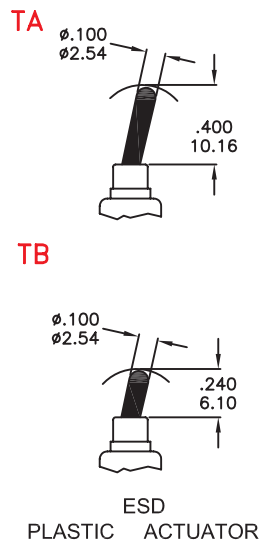
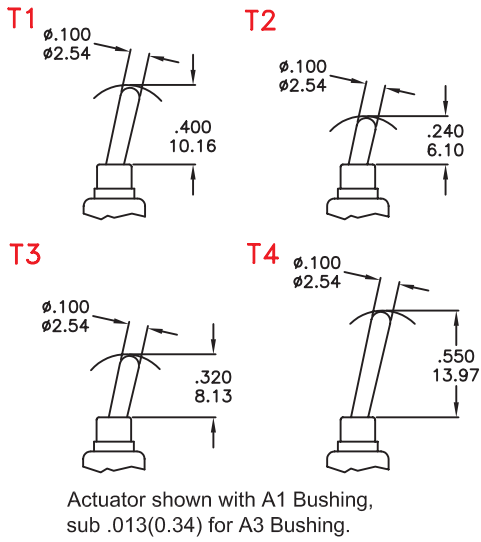
M6 RIGHT ANGLE P.C. MOUNT

M6N RIGHT ANGLE P.C. MOUNT  
SNAP-IN BRACKET

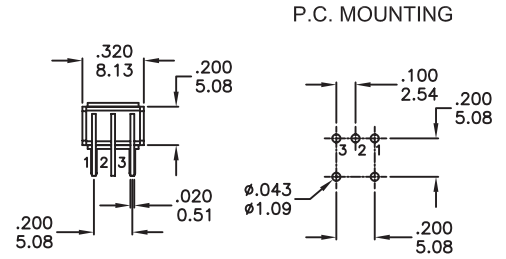
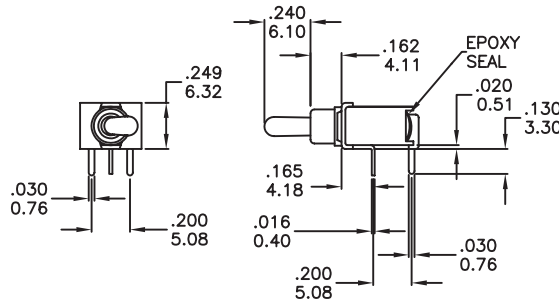
M7 RIGHT ANGLE P.C. MOUNT

VS2 VERTICAL BRACKET P.C.MOUNT

## ACTUATOR OPTIONS      BUSHING OPTIONS



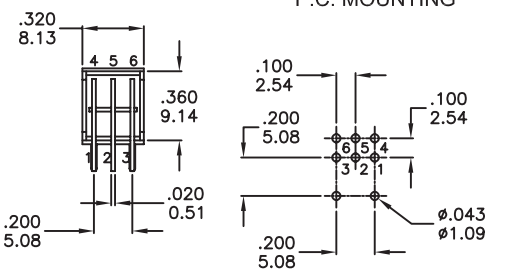
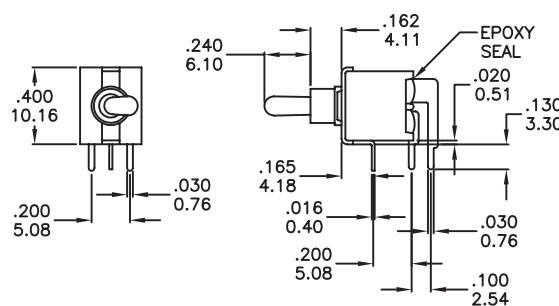
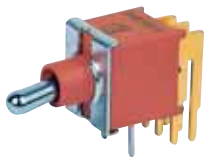
### M6



### SPDT

Part No. Shown : 2AS1T2A1M6RE

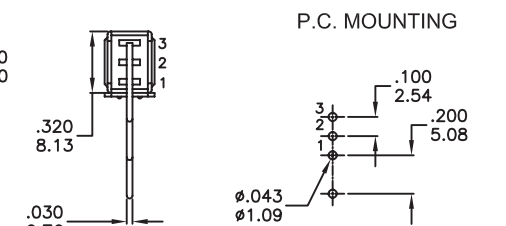
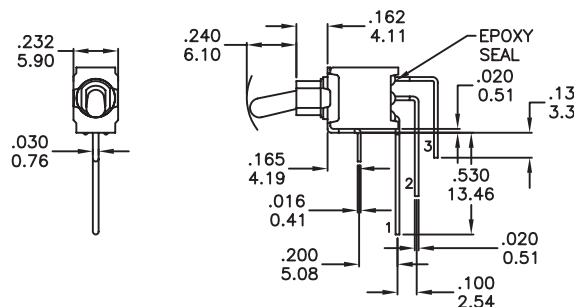
### M6



### DPDT

Part No. Shown : 2AD1T2A2M6RE

### M7



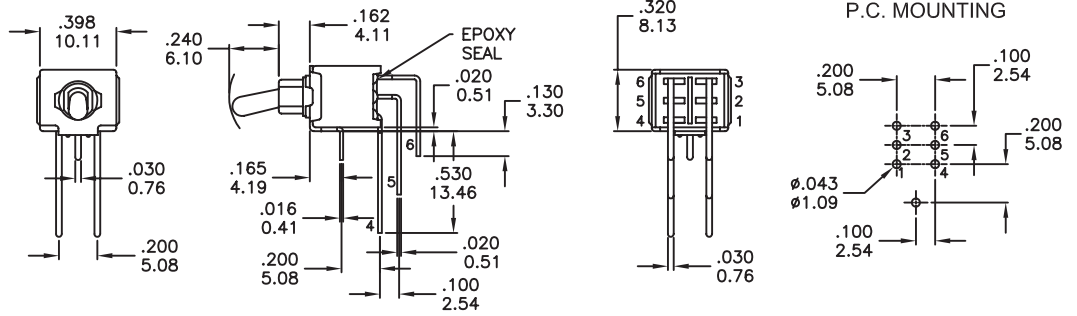
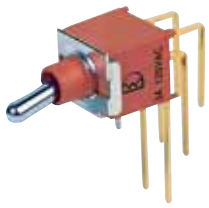
### SPDT

Part No. Shown : 2AS3T2A1M7RE

# 2A Series

# Sealed Sub-Miniature Toggle Switches

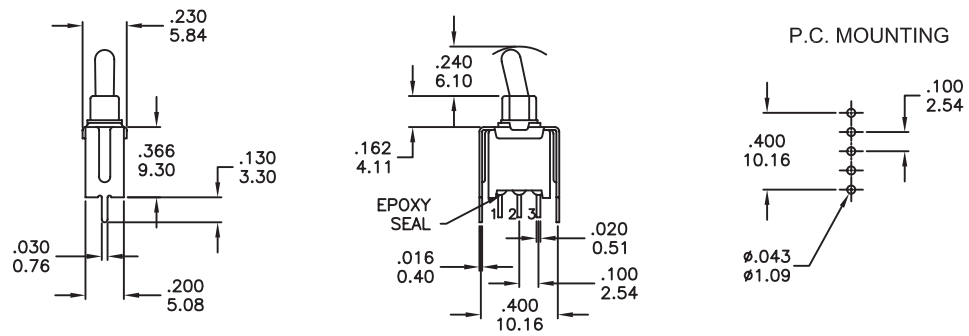
M7



DPDT

Part No. Shown : 2AD1T2A2M7RE

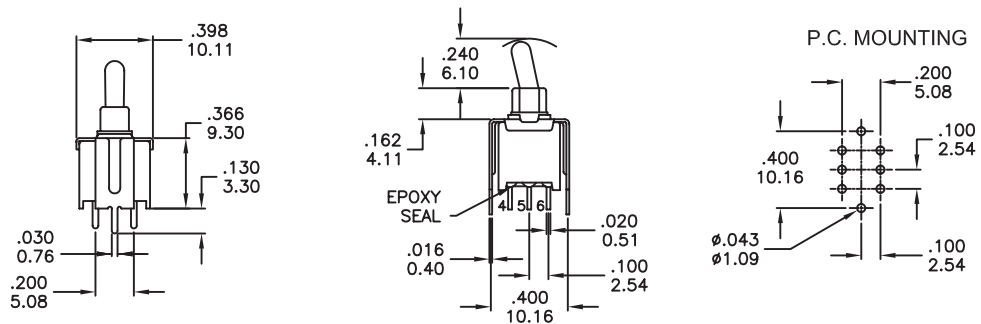
VS2



SPDT

Part No. Shown : 2AS1T2A1VS2RE

VS2

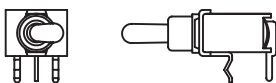


DPDT

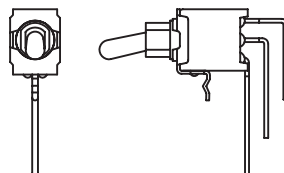
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## SNAP - IN TERMINATION OPTIONS

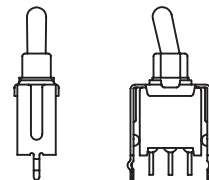
M6N



M7N



V2N



## CONTACT MATERIAL OPTIONS

	<b>C.K</b>	<b>R.G</b>
<b>R</b> =Gold		
<b>G</b> =Gold,tin-lead		
<b>C</b> =Gold over silver	<b>FIXED TERMINAL:</b> Silver plated over copper alloy	<b>FIXED TERMINAL:</b> Copper alloy with gold plated over nickel plated
<b>K</b> =Gold over silver ,tin-lead	<b>MOVABLE CONTACT:</b> Silver plated over copper alloy	<b>MOVABLE CONTACT:</b> Copper alloy with gold plated over nickel plated
	<b>RATING:</b> 3 Amps with resistant load @ 120VAC or 28VDC 1 Amps with resistant load @ 250VAC	<b>RATING:</b> 0.4 Volt-Amps(VA)max. @ 20V max. (AC or DC)



**IP 67**

ACCORDING TO  
EN 60529:1991+A1:2001  
IEC 60529:2001

### SOLDERING PROCESSES

**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: 5 ±1 seconds  
(PCB is 1.6mm in thickness)

**SOLDERING :** Vapor phase

### Temperature Profile

Zone	Room temperature	Time ( Sec )
Pre-heat ( A )	150°C	Min 120s
Soak ( B )	180°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 10s

