



IP 67  
ACCORDING TO  
EN 60529:1991+A1:2001  
IEC 60529:2001

C<sub>UL</sub> US  
E 187490

RoHS  
compliant

Pb  
lead-free

### SPECIFICATIONS

**CONTACT RATING:** Dependent upon contact material See Page 37.

**MECHANICAL LIFE:** 30,000 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.

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

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

### 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 / TERMINALS:** Copper alloy, with Silver or gold plated.  
(See Page 37)








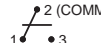
## HOW TO ORDER

MODEL NO.	ACTUATOR	BUSHING	TERMINATIONS	TERMINAL PLATING	SEAL	RoHS SOLDERING
<div> <div></div> <div></div> <div></div> <div></div> </div> <p>Model NO.  <b>2BS1</b> SP On-None-On  <b>2BS2</b> SP On-None-Mom  <b>2BS3</b> SP On-Off -On  <b>2BS4</b> SP Mom-Off-Mom  <b>2BS5</b> SP On-Off-Mom</p>	<div> <div></div> <div></div> </div> <p>Actuator  <b>T1</b> 10.16 high  <b>T2</b> 6.10 high  <b>T4</b> 13.97 high  <b>TA</b> Plastic, Black, 10.16 high  <b>TB</b> Plastic, Black, 6.10 high</p>	<div> <div></div> <div></div> <div></div> </div> <p>Bushing  <b>A1</b> 4.35 high (Std)</p>	<div> <div></div> <div></div> <div></div> </div> <p>Terminations  <b>MT</b> (STD) Right angle, surface mount.  <b>MZ</b> (STD)</p>	<div> <div></div> </div> <p>Terminal plating  <b>Q</b> Gold flash over silver  <b>R</b> Gold  <b>C</b> Gold over silver</p>	<div> <div></div> </div> <p>Seal  <b>E</b> EPOXY (std)</p>	<div> <div></div> </div> <p>RoHS soldering  <b>S</b> RoHS &amp; Lead Free</p>

2B Series

Sealed Sub-Miniature Toggle Switches(SMT)

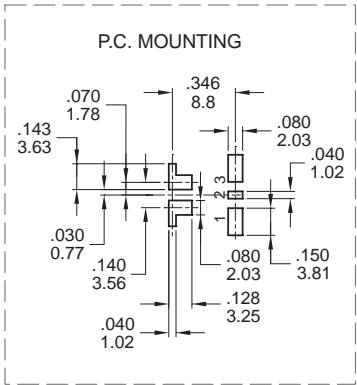
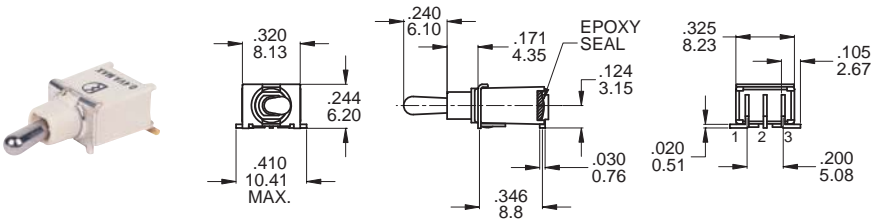
SWITCH FUNCTION

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	Q22B11	2BS1	ON	NONE	ON		N/A	
	Q22B12	2BS2	ON	NONE	MOM			
	Q22B13	2BS3	ON	OFF	ON			
	Q22B14	2BS4	MOM	OFF	MOM			
	Q22B15	2BS5	ON	OFF	MOM			

MOM=MOMENTARY

POLE OPTIONS

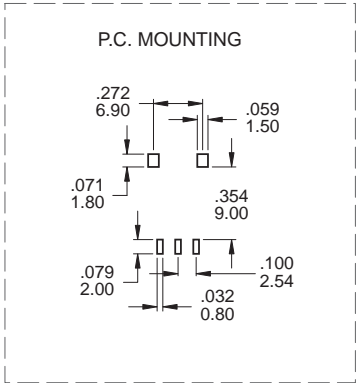
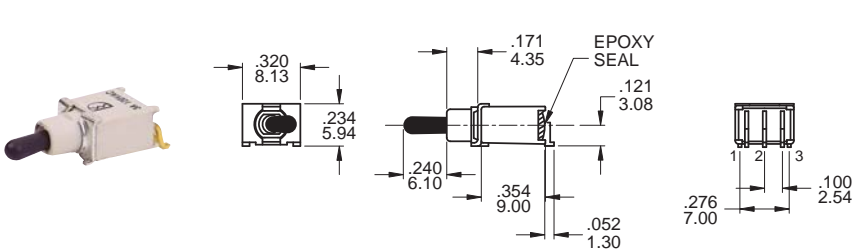
MT



SPDT

Part No. Shown : 2BS1T2A1MTRES

MZ

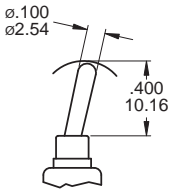


SPDT

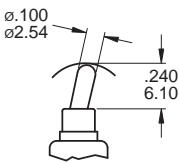
Part No. Shown : 2BS1TBA1MZRES

ACTUATOR OPTIONS

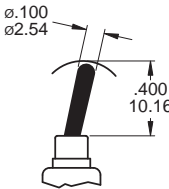
T1



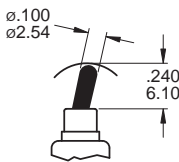
T2



TA



TB

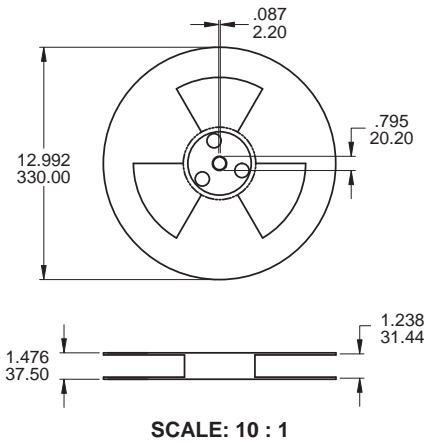
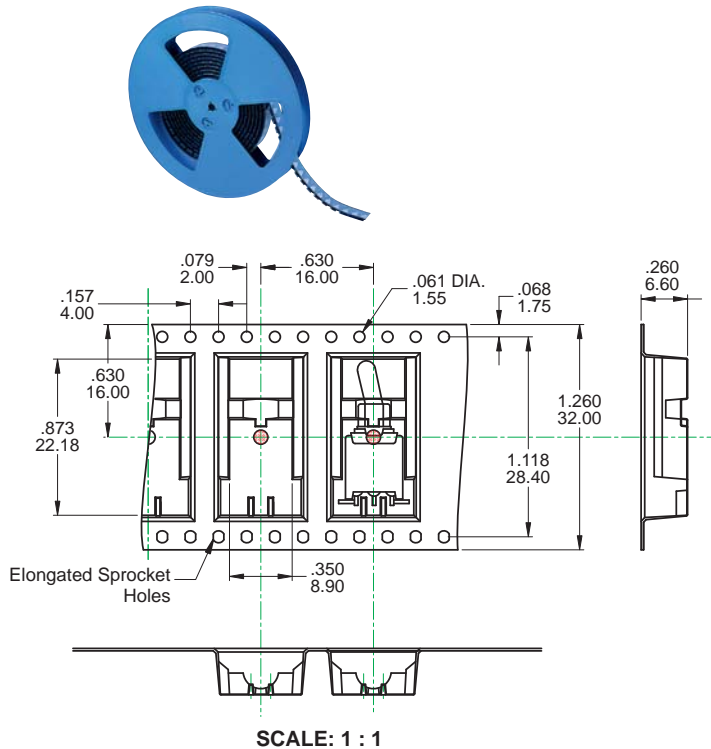


PLASTIC ACTUATOR

### PACKAGING

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

### CONTACT MATERIAL OPTIONS

	CONTACT PLATING	TERMINAL PLATING	RATINGS
Q	Silver	Q = Gold flash over silver	3 Amps with resistant load @ 120VAC or 28VDC 1 Amps with resistant load @ 250VAC
C	Gold over Silver	C = Gold over silver	
R	Gold	R = Gold	0.4 Volt - Amps ( VA ) max. @ 20V max. ( AC or DC )

### SOLDERING PROCESSES

#### REFLOW SOLDERING:

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

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

