

# Toggle Switches

## Miniature



### Specifications:

Contact Rating	: Dependent upon contact material
Mechanical life	: 40,000 make and break cycles
Maximum contact resistance	: 10 mΩ
Initial voltage	: 2 to 4 V dc
Current	: 10 mA for both silver and gold plated contacts
Minimum Insulation Resistance	: 1,000 MΩ
Dielectric Strength	: 1,000 V rms at sea level
Operating Temperature	: -30°C to 85°C

### Materials:

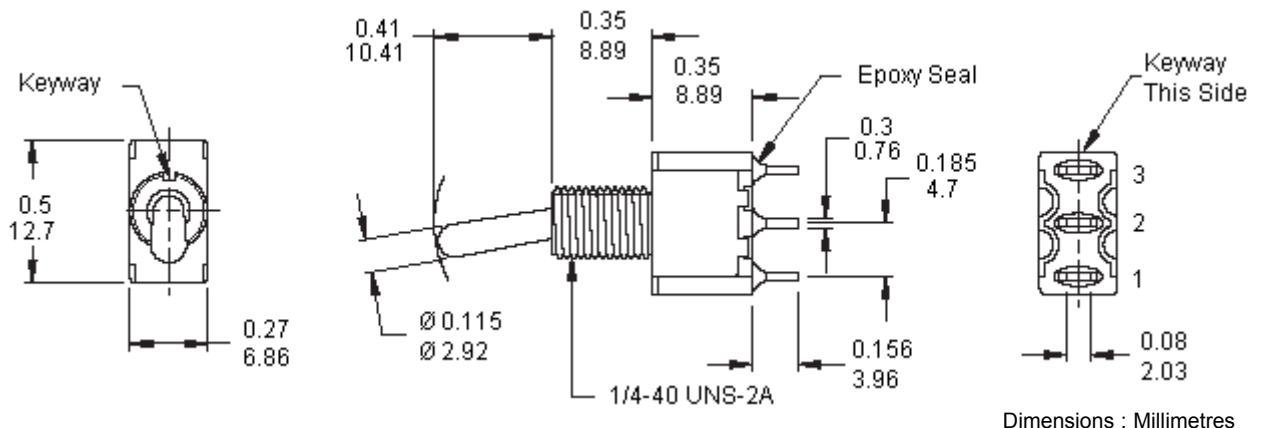
Case	: Diallyl phthalate (DAP) (UL 94V-0)
Actuator	: Brass, chrome plated
Bushing	: Brass, nickel plated
Housing	: Stainless steel
Switch Support	: Brass, tin plated
Terminal / Contact	: Silver or gold plated

### Switch Function

Number of Poles	UL / CSA Model Numbers	Model Number	Switch Function			Connected Terminals / Schematic		
			Position 1	Position 2	Position 3	Position 1	Position 2	Position 3
SP	Q1112	1MS2	On	None	MOM	2 to 3 	N/A	2 to 1 
DP	Q1122	1MD1	On	None	ON	2 to 3, 5 to 6 	N/A	2 to 1, 5 to 4 

### Pole Options

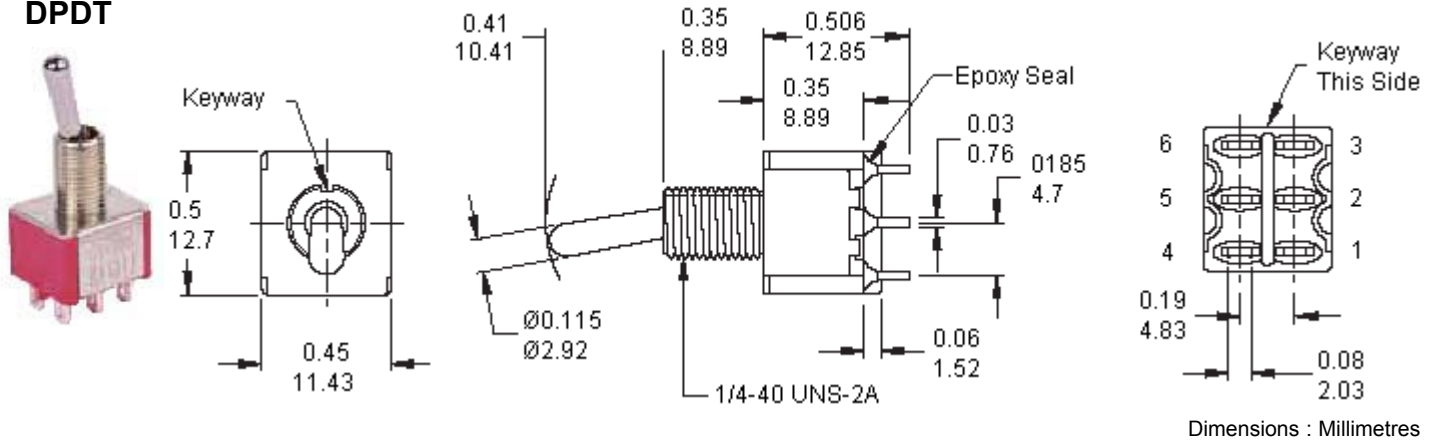
#### SPDT



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### DPDT



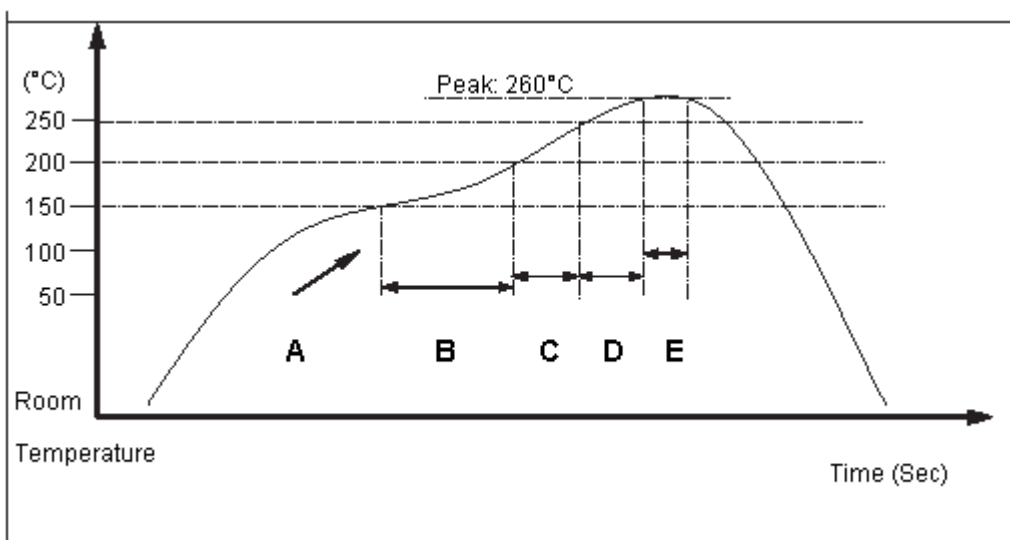
### Soldering Process:

- 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 1.6 mm in thickness)

### Soldering : Vapour Phase

#### Temperature Profile

Zone	Room Temperature	Time (seconds)
Pre-heat (A)	150°C	Minimum 120 seconds
Soak (B)	180°C to 200°C	Minimum 150 seconds
Peak (C)	200°C to 235°C	Minimum 30 seconds
Peak (D)	235°C to 260°C	Minimum 40 seconds
Peak (E)	260°C	Maximum 10 seconds



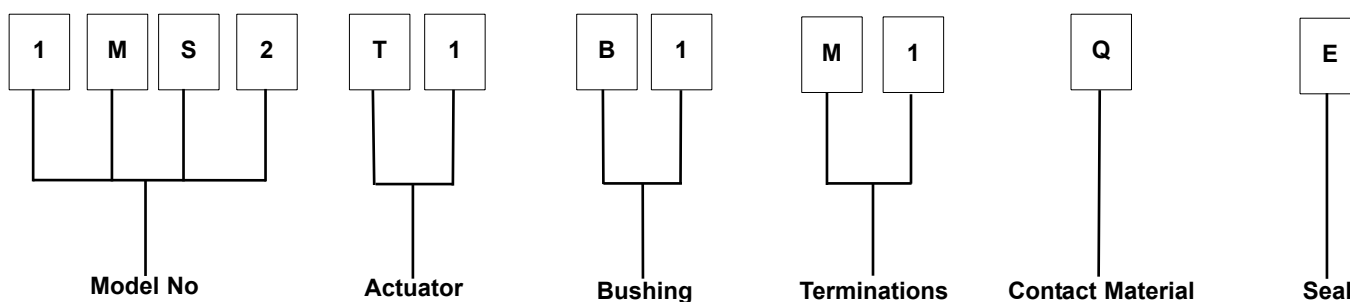
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### Part Number Table

Description	Part Number
Switch, SPDT	1MS2T1B1M1QE
Switch, SPDT	1MS2T1B1M1RE
Switch, DPDT	1MD1T1B1M1QE

### Part Number Explanation



- Model No** : 1MS2 = SP On-None-Mom, 1MD1 = DP On-None-On
- Actuator** : T1 = 10.41 high
- Bushing** : B1 = 8.89 high, keyway (thd std)
- Terminations** : M1 = Solder Lug
- Contact Material** : Q = Silver, R = Gold
- Seal** : E = Epoxy (std)

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