

# Pushbutton Switches

## Sub-Miniature

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**RoHS  
Compliant**

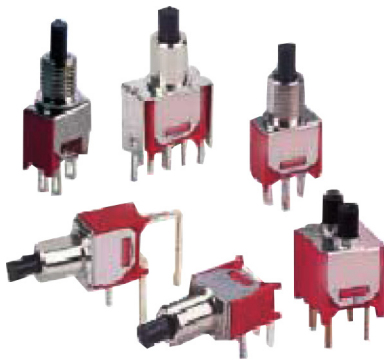
### Specifications

Contact Rating : Dependent upon contact material  
 Mechanical Life : 50,000 make-and-break cycles  
 Max. Contact Resistance : 20mΩ initial at 2V DC ~ 4V DC  
 100mA for both silver and gold plated contacts

Min. Insulation Resistance : 1,000MΩ  
 Dielectric Strength : 1,000V rms at sea level  
 Operating Temperature : -30°C to 85°C

#### Materials:

Case : Diallyl phthalate (DAP)  
 Plunger : Thermoplastic Polyester-black  
 Bushing : Brass, nickel plated  
 Housing : Stainless steel  
 Contact : Silver or gold plated  
 Terminal : Brass, silver plated  
 Terminal support : Brass, tin plated



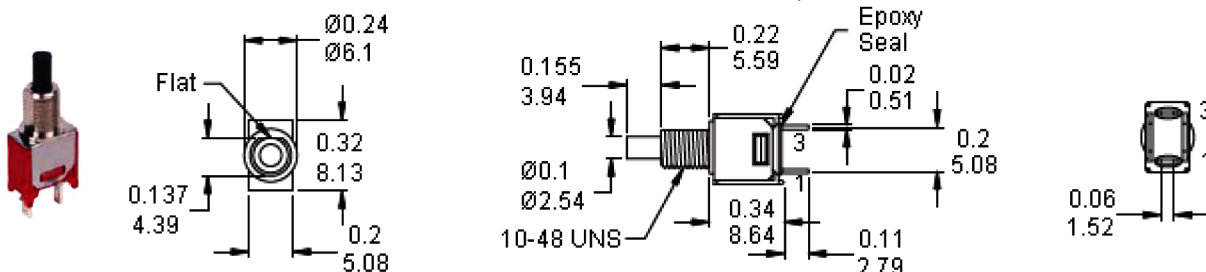
### Switch Function

| Number of Poles | Model Numbers | Switch Function |            | Connected Terminals/Schematic |            |
|-----------------|---------------|-----------------|------------|-------------------------------|------------|
|                 |               | Position 1      | Position 2 | Position 1                    | Position 2 |
| SP              | MC8BS8        | ON              | MOM        |                               |            |
|                 | MC8BS9        | OFF             | MOM        | Open                          |            |
| DP              | MC8MD9        | OFF             | MOM        | Open                          |            |

MOM = Momentary

### Pole Options

SPDT



Dimensions : Inches (Millimetres)

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 Element14.com/multicomp-pro

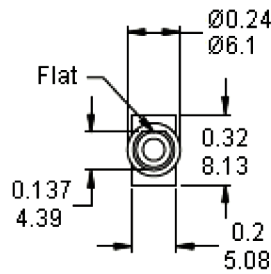
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# Pushbutton Switches

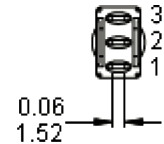
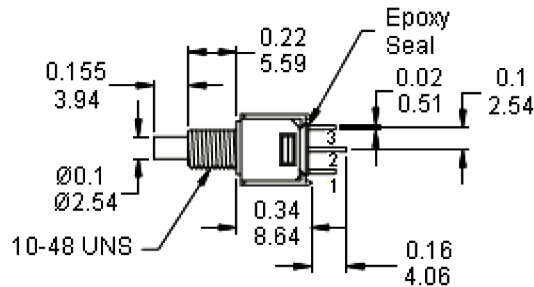
## Sub-Miniature

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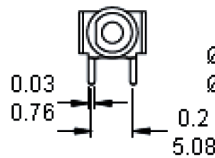
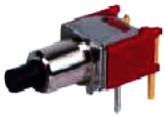
SPDT



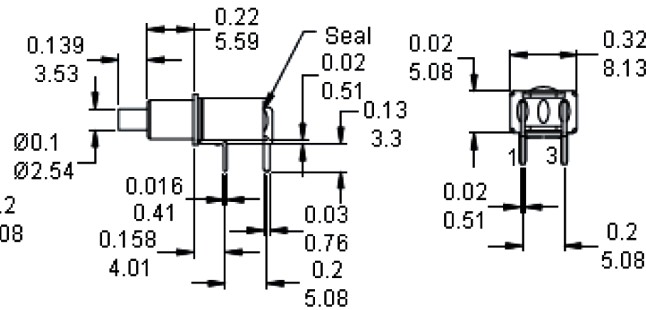
MC8MS8P1B05M1QES



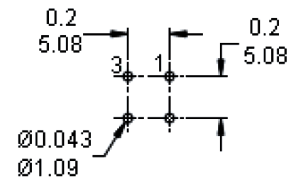
SPST



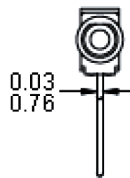
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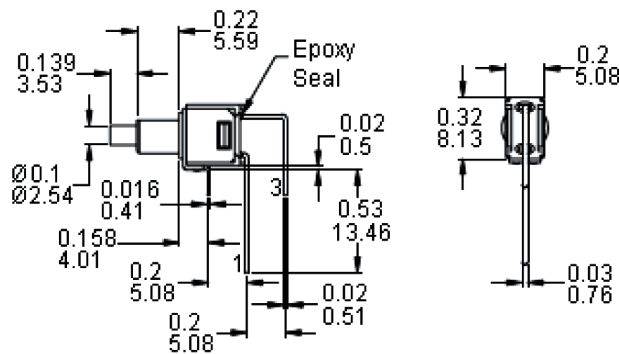
PC Mounting



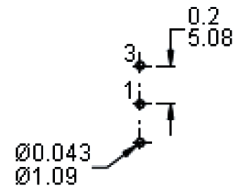
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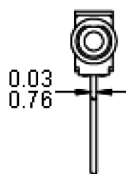
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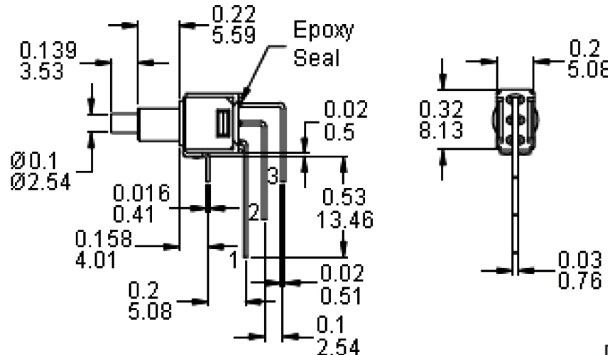
PC Mounting



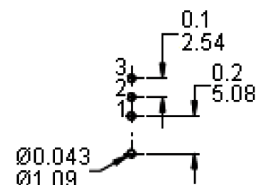
SPDT



MC8MS8P1B06M7QES



PC Mounting



Dimensions : Inches (Millimetres)

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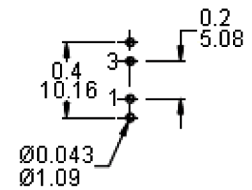
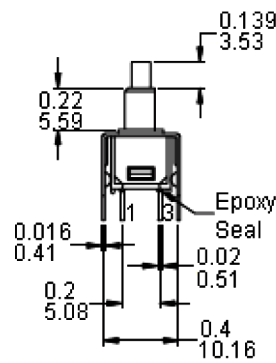
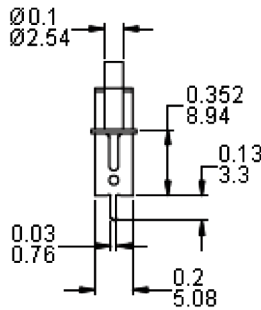
# Pushbutton Switches

## Sub-Miniature

### SPST

### MC8MS9P1B06VS2QES

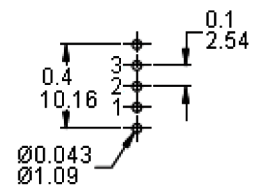
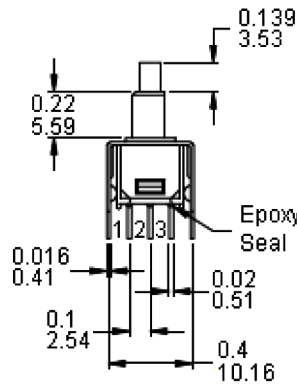
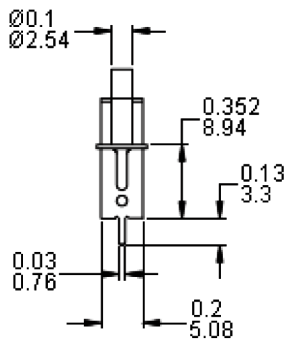
### PC Mounting



### SPDT

### MC8MS8P1B06VS2QES

### PC Mounting



Dimensions : Inches (Millimetres)

### Switch Function

| Number of Poles | Model Numbers | Switch Function |            | Connected Terminals/Schematic |                    |
|-----------------|---------------|-----------------|------------|-------------------------------|--------------------|
|                 |               | Position 1      | Position 2 | Position 1                    | Position 2         |
|                 |               |                 |            |                               |                    |
| SP              | MC8MSL        | ON              | ON         | 2-1<br>NC 1 • 3 NO            | 2-3<br>NC 1 • 3 NO |

MOM = Momentary

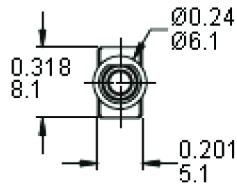
# Pushbutton Switches

## Sub-Miniature

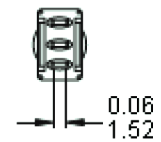
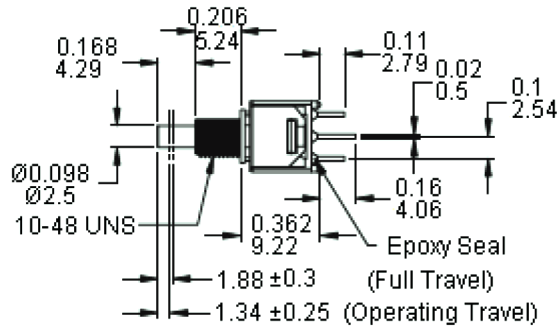
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### Pole Options

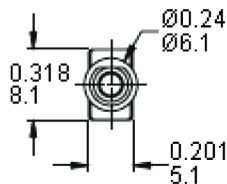
SPDT



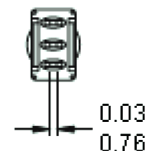
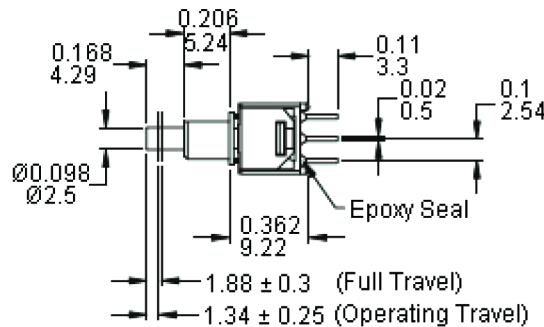
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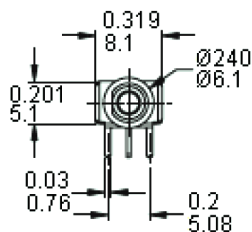
SPDT



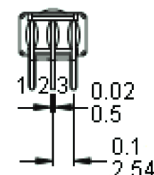
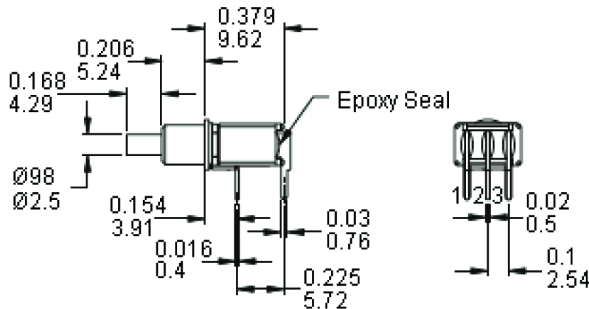
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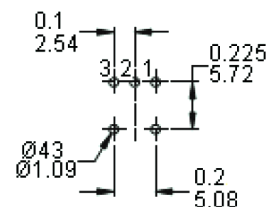
SPDT



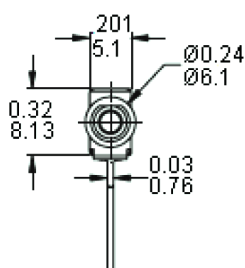
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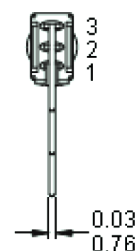
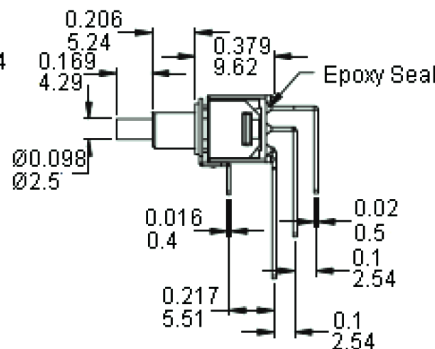
PC Mounting



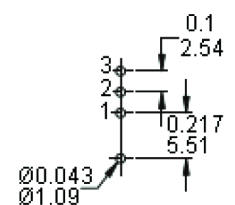
SPDT



MC8MSLP1B06M7QES



PC Mounting



Dimensions : Inches (Millimetres)

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# Pushbutton Switches

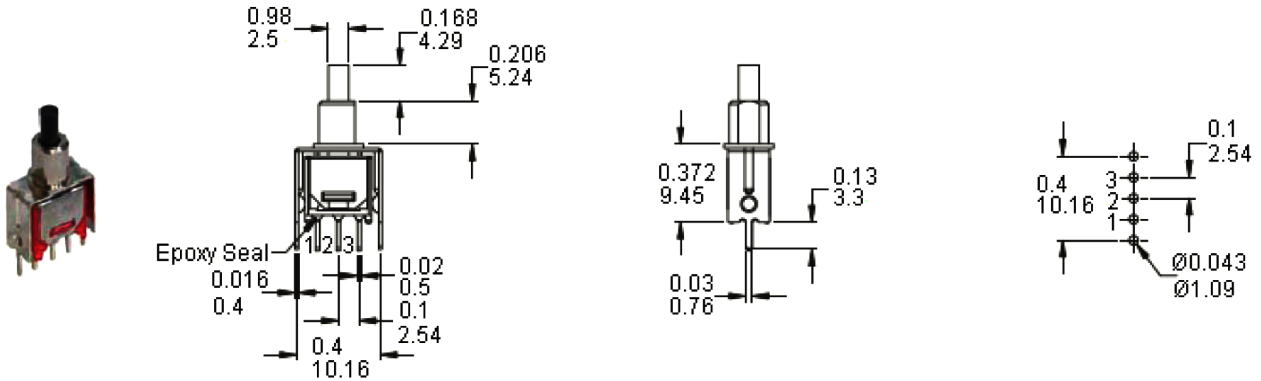
## Sub-Miniature

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SPDT

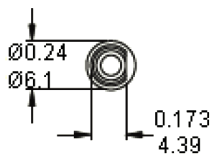
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PC Mounting

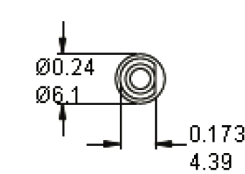


### Bushing Options

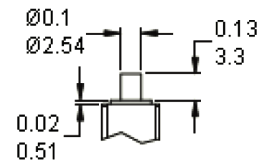
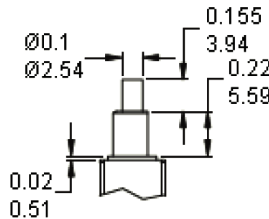
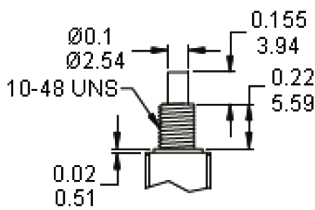
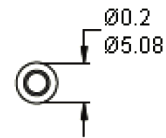
B05 THD



B06 NON-THD

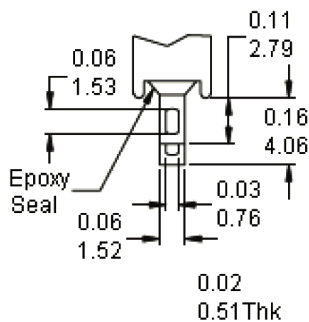


B10

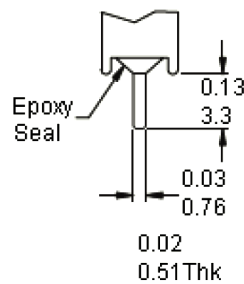


### Termination Options

M1 Solder LUG



M2 PC Mounting



### Other Termination Options

M6 = Right Angle PC Mount

M7 = Right Angle PC Mount

VS2 = Vertical Bracket PC Mount

Dimensions : Inches (Millimetres)

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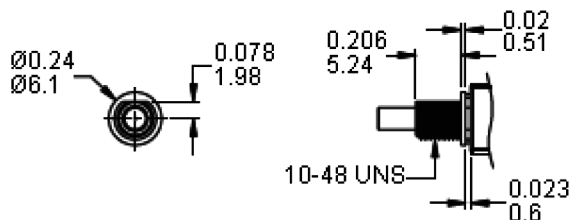
# Pushbutton Switches

## Sub-Miniature

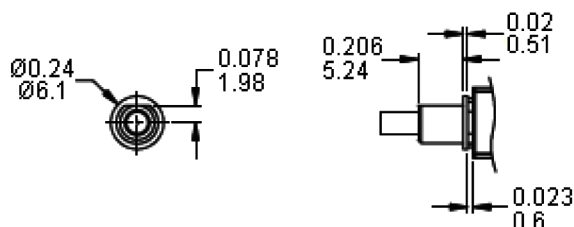
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### Bushing Options

**B05 THD**

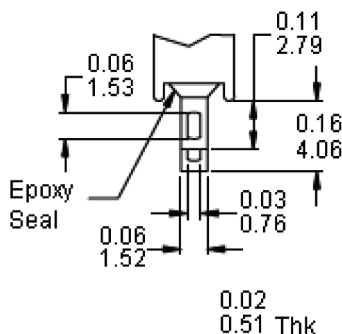


**B06 NON-THD**

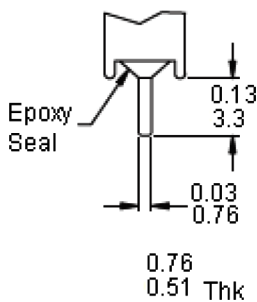


### Termination Options

**M1 Solder LUG**



**M2 PC Mounting**



Dimensions : Inches (Millimetres)

### Other Termination Options

M6 = Right Angle PC Mount

M7 = Right Angle PC Mount

VS2 = Vertical Bracket PC Mount

### Contact Material Options

|   | Contact Plating | Terminal Plating | Ratings   |
|---|-----------------|------------------|---|
| Q | Silver          | Q = Silver       | 3 Amperes with resistant load at 120V AC or 28V DC<br>1 Ampere with resistant load at 250V AC |
| R | Gold            | R = Gold         | 0.4 Volt - Amperes (VA) maximum at 20V maximum<br>(AC or DC)                                  |

### 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 : Maximum 5 seconds (PCB is 1.6mm in thickness)

Soldering : Vapour phase

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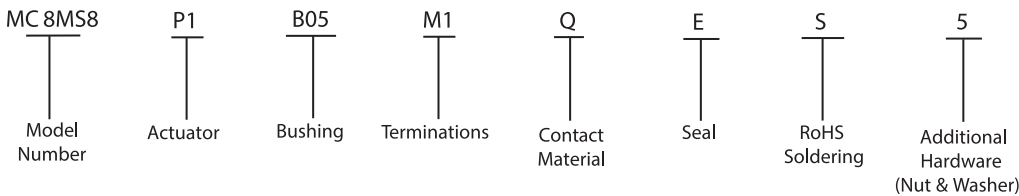
# Pushbutton Switches

## Sub-Miniature

### Part Number Table

| Description                               | Part Number        |
|---|--------------------|
| Switch, SPST, Off-MOM, Solder             | MC8MS9P1B05M1QE    |
| Switch, SPDT, On-MOM, Solder              | MC8MS8P1B05M1QES   |
| Switch, DPST, Off-MOM, PCB                | MC8MD9P1B10M2RES   |
| Switch, SPST, Off-MOM, Right / Angle      | MC8MS9P1B06M6RES   |
| Switch, DPST, Off-MOM, Right / Angle      | MC8MD9P1B10M6RES   |
| Switch, SPST, Off-MOM, Vert Right / Angle | MC8MS9P1B06M7QES   |
| Switch, SPDT, On-MOM, Vert Right / Angle  | MC8MS8P1B06M7QES   |
| Switch, SPST, Off-MOM, V-Bracket          | MC8MS9P1B06VS2QES  |
| Switch, SPDT, On-MOM, V-Bracket           | MC8MS8P1B06VS2QES  |
| Switch, SPDT, Off-MOM, Solder             | MC8MS9AP122M1QES   |
| Switch, SPDT, On-On, Solder               | MC8MSLP1B05M1QES-5 |
| Switch, SPDT, On-On, PCB                  | MC8MSLP1B06M2QES   |
| Switch, SPDT, On-On, Right / Angle        | MC8MSLP1B06M6RES   |
| Switch, SPDT, On-On, Vert Right / Angle   | MC8MSLP1B06M7QES   |
| Switch, SPDT, On-On, V-Bracket            | MC8MSLP1B06VS2QES  |

### Part Number Explanation



- Model Number : MC8MS8 = On-Mom, MC8MS9 = Off-Mom and MC8MSL = On-On
- Actuator : P1 = 3.94 high
- Bushing : B05 = 5.59 high, flat (thd), B06 = 5.59 high, flat (non-thd) and B10 = 3.30 high
- Frame Colour / Actuator Colour : 22 = Black (Standard)
- Terminations : M1 = Solder Lug, M2 = PC thru-hole, M6 = Right angle, PC thru-hole, M7 = Vertical right angle, PC thru-hole and VS2 = 8.94 high, V-bracket
- Contact Material : Q = Silver, R = Gold
- Seal : E = Epoxy (std)
- RoHS Soldering : S = RoHS and Lead Free

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