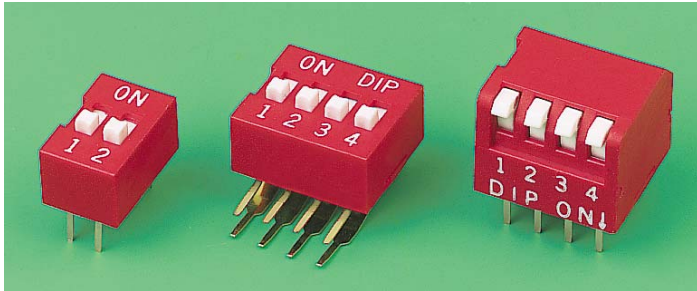
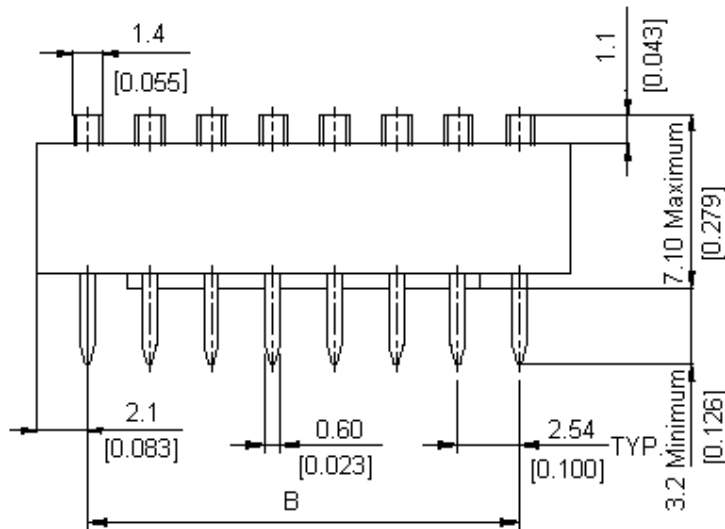
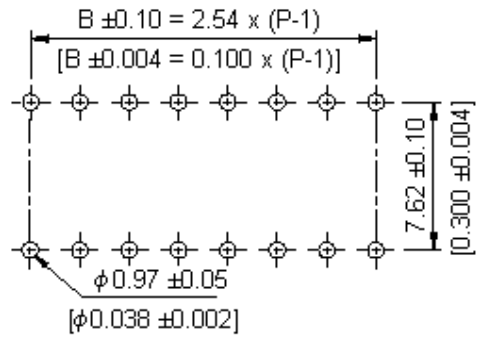
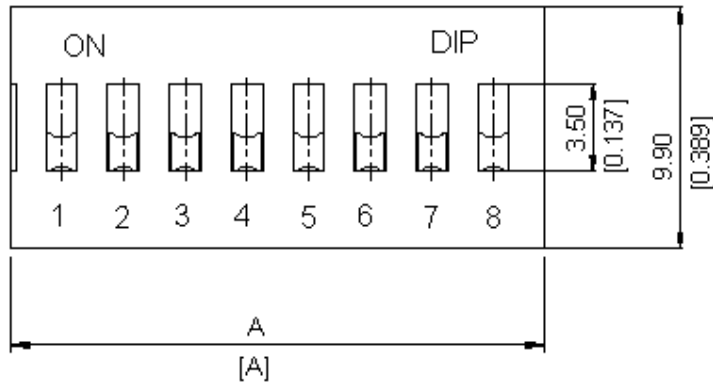


# MCDS, MCDP, MCDA Series

## DIL Switches

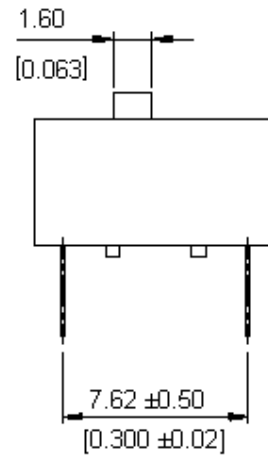


### DS Series



General Tolerance : ±0.2mm

### PCB Layout



Dimensions : Millimetres (Inches)

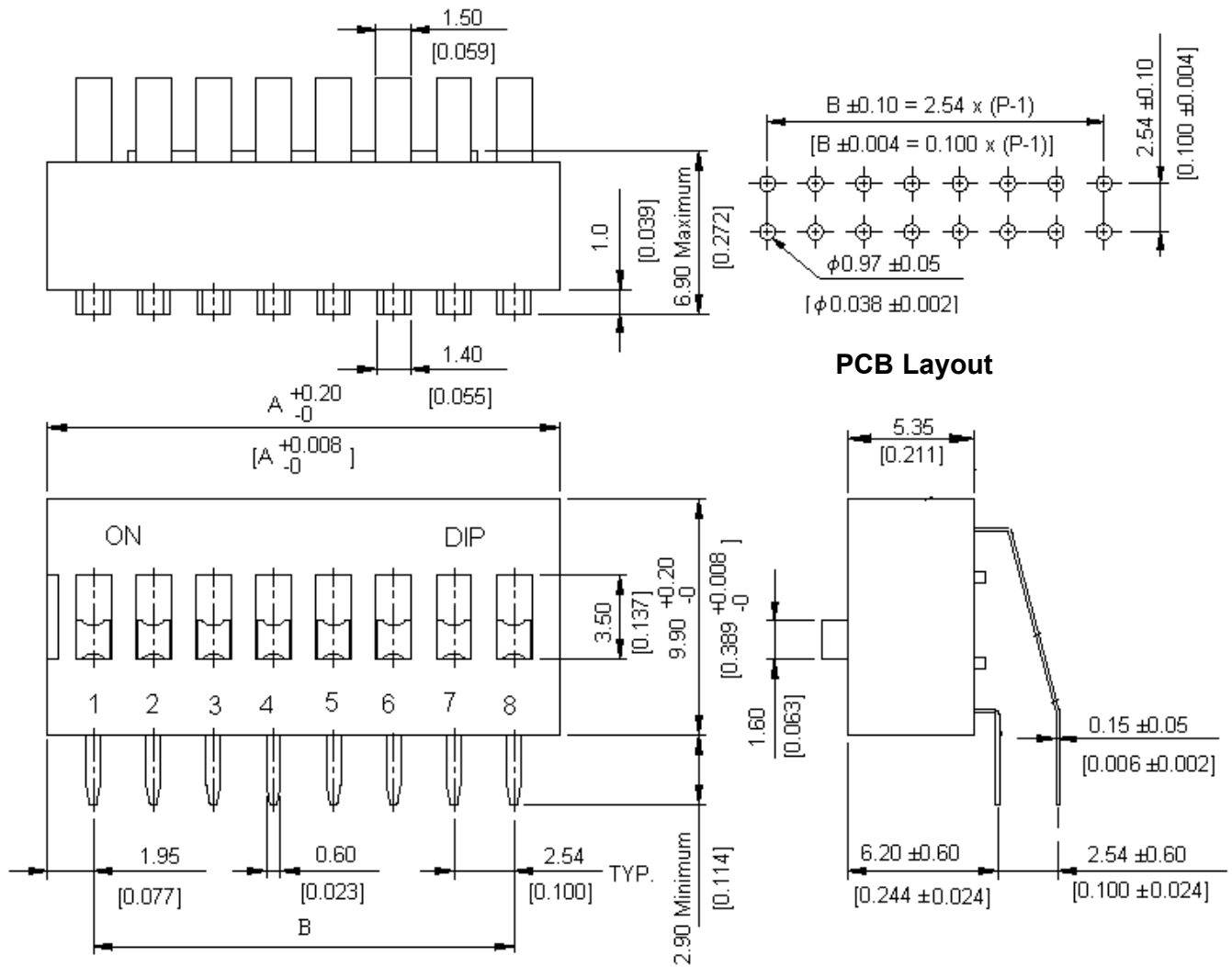


# MCDS, MCDP, MCDA Series

## DIL Switches



### DA Series



General Tolerance :  $\pm 0.2$ mm

Dimensions : Millimetres (Inches)

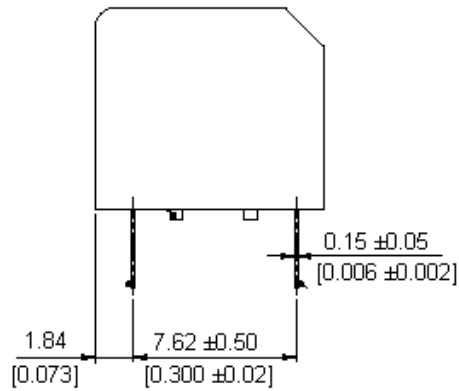
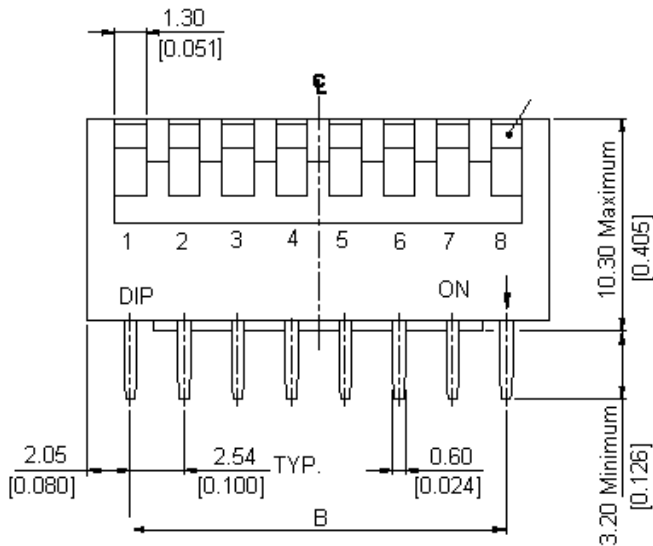
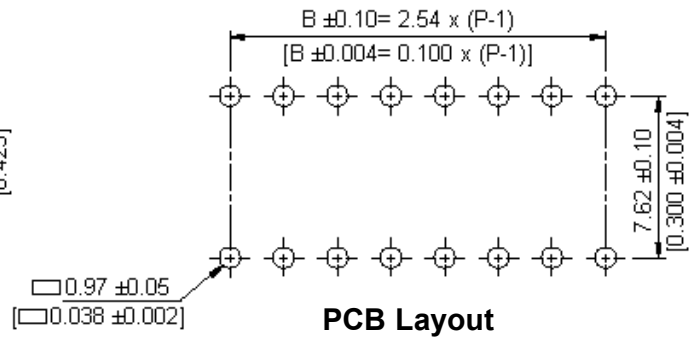
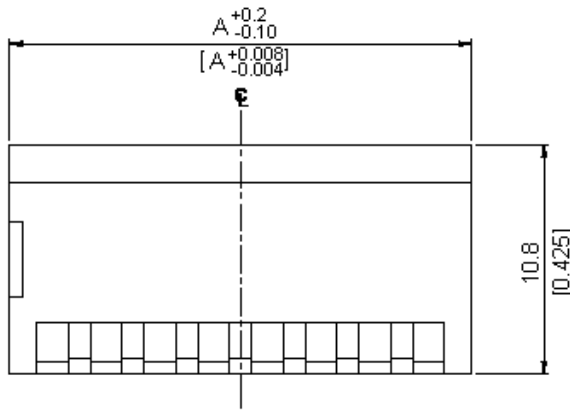


# MCDS, MCDP, MCDA Series

## DIL Switches



### DP Series



General Tolerance : ±0.2mm

Dimensions : Millimetres (Inches)

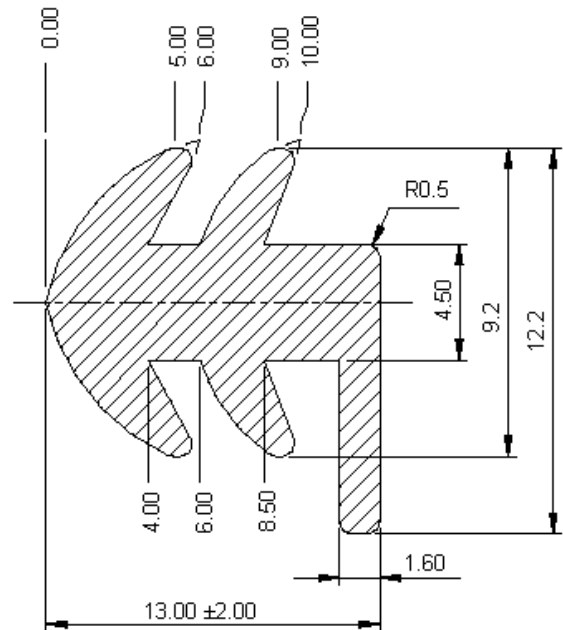
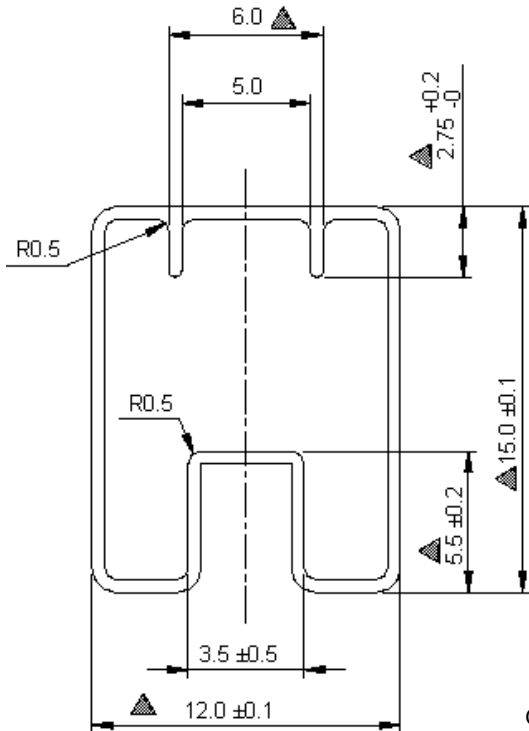


# MCDS, MCDP, MCDA Series

## DIL Switches

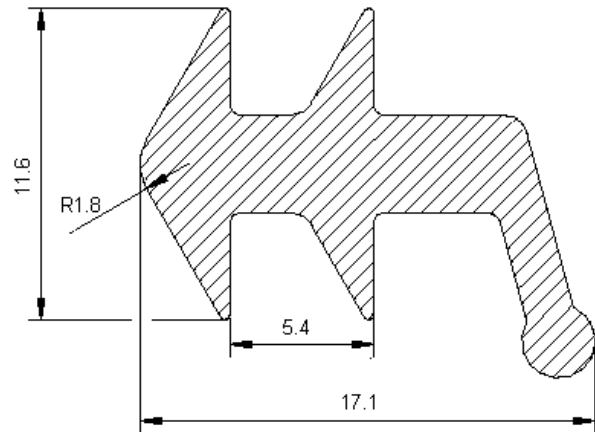
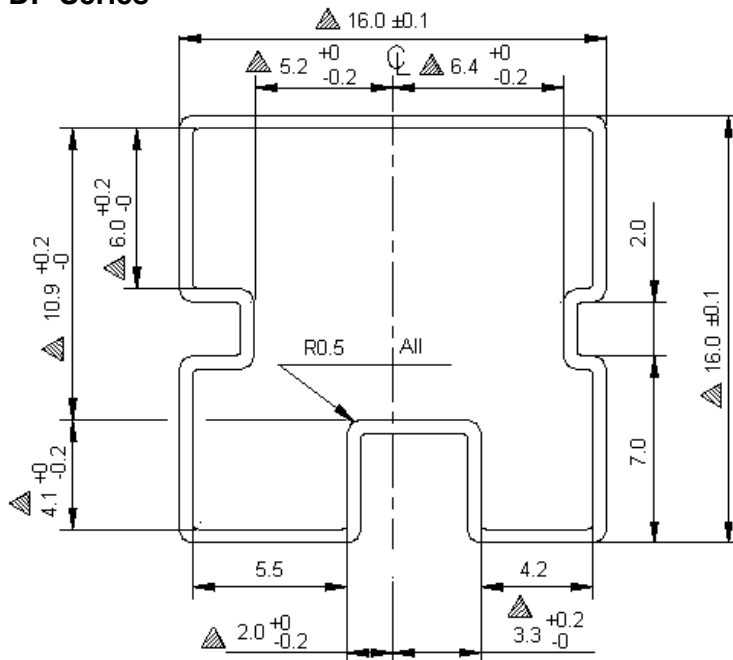


### DS Series



General Tolerance :  $\pm 0.1$ mm

### DP Series



General Tolerance :  $\pm 0.1$ mm

Dimensions : Millimetres

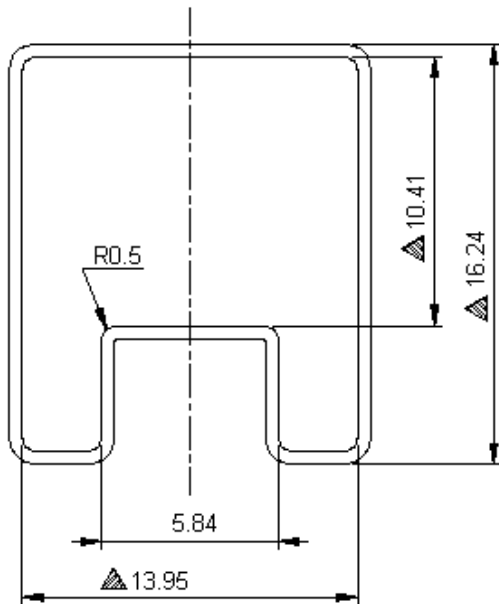


# MCDS, MCDP, MCDA Series

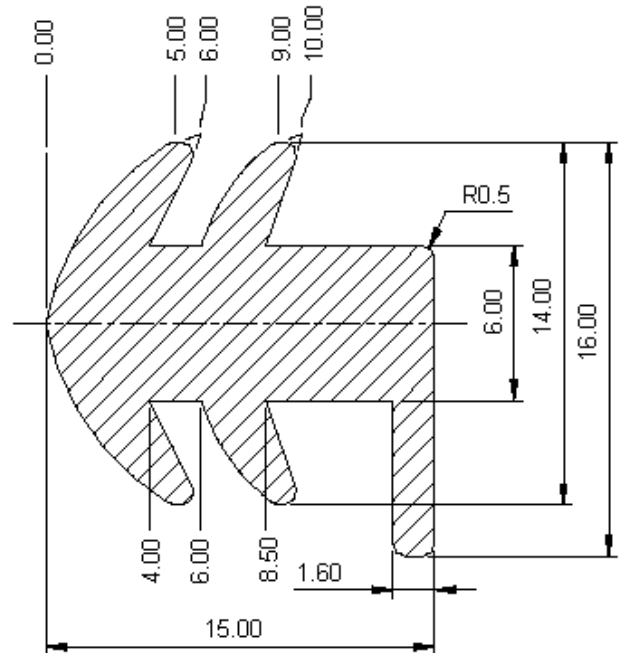
## DIL Switches



### DA Series



General Tolerance :  $\pm 0.1\text{mm}$



Dimensions : Millimetres

### Specifications:

#### Mechanical:

Mechanical Life	: 2000 operations per switch.
Maximum Operation Force	: 400gf (DP Series) 1000gf (DS and DA Series).
Stroke	: 2.0mm.
Operation Temperature	: $-20^{\circ}\text{C}$ to $+70^{\circ}\text{C}$ .
Storage Temperature	: $-40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$ .

#### Electrical:

Electrical Life	: 2000 operations per switch 24V dc, 25mA.
Non-Switching Rating	: 100mA , 50V dc.
Switching Rating	: 25mA , 24V dc.
Maximum Contact Resistance	: 50m $\Omega$ at initial.
Minimum Insulation Resistance (at 500V dc)	: 100M $\Omega$ .
Dielectric Strength	: 500V ac per minute.
Circuit	: SPST.



# MCDS, MCDP, MCDA Series

## DIL Switches



### Specifications:

#### Materials:

Base	: PBT thermoplastic. Colour : Black.
Cover	: PBT thermoplastic. Colour : Red.
Actuator	: PBT high thermoplastic. Colour : White.
Contact	: Phosphor bronze with gold plating over nickel.
Top Seal	: Polyester film.
Potting Material	: Epoxy.

### Soldering Process:

Keep all switch contacts in their "OFF" position for all operations.

#### Wave Soldering:

Recommended temperature at 500°F (260°C ) maximum 5 seconds for through hole type.

#### Hand Soldering:

Use a soldering iron of 30 watts, controlled at 350°C approximately maximum 5 seconds.

Make sure switch is in "OFF" position during soldering process, or it will decrease the operating force and meanwhile increase the contact resistance.

Do not wash the switch body except top tape sealed type, which suitable for spray cleaning method from top of the switch.

### Specification Table

Number of Positions	Dimension A	Dimension B	Part Number
3	8.98 (0.354)	5.08 (0.200)	MCDS03
5	14.06 (0.554)	10.16 (0.400)	MCDS05
7	19.14 (0.754)	15.24 (0.600)	MCDS07
9	24.22 (0.954)	20.32 (0.800)	MCDS09
2	6.44 (0.254)	2.54 (0.100)	MCDA02
10	26.76 (1.054)	22.86 (0.900)	MCDA10
12	31.84 (1.254)	27.94 (1.100)	MCDA12
2	6.64 (0.261)	2.54 (0.100)	MCDP02
10	26.96 (1.061)	22.86 (0.900)	MCDP10
12	32.04 (1.261)	27.94 (1.100)	MCDP12

Dimensions : Millimetres (Inches)

### Schematic (Typical):

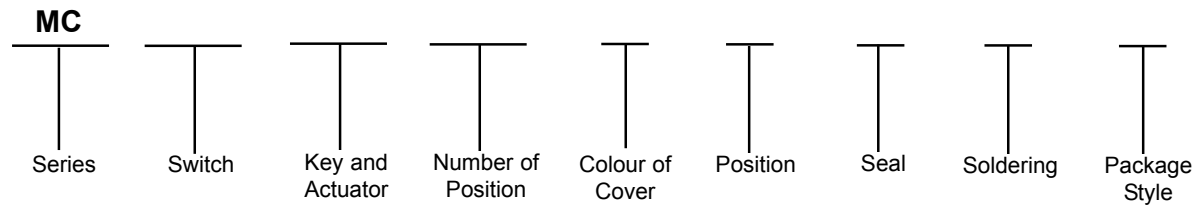


# MCDS, MCDP, MCDA Series



## DIL Switches

### Part Number Explanation:



**Switch** : DS = Slide Type Dip Switch.  
DA = Right Angle Type Dip Switch.  
DP = Piano Type Dip Switch.

**Key and Actuator** : DS  = Raised Actuator.  
DA  = Raised Actuator.  
DP  = Short Key.

**Number of Positions** : 02 = 2 Positions.  
03 = 3 Positions.  
05 = 5 Positions.  
07 = 7 Positions.  
09 = 9 Positions.  
10 = 10 Positions.  
12 = 12 Positions.

**Colour of Cover** :  = Red.  
**Position** :  = Push Down ON.  
**Seal** :  = Regular.  
**Soldering** : V = Lead Free Solderable.  
**Package Style** :  = Tube.



# MCDS, MCDP, MCDA Series

## DIL Switches



### Notes:

### International Sales Offices:



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