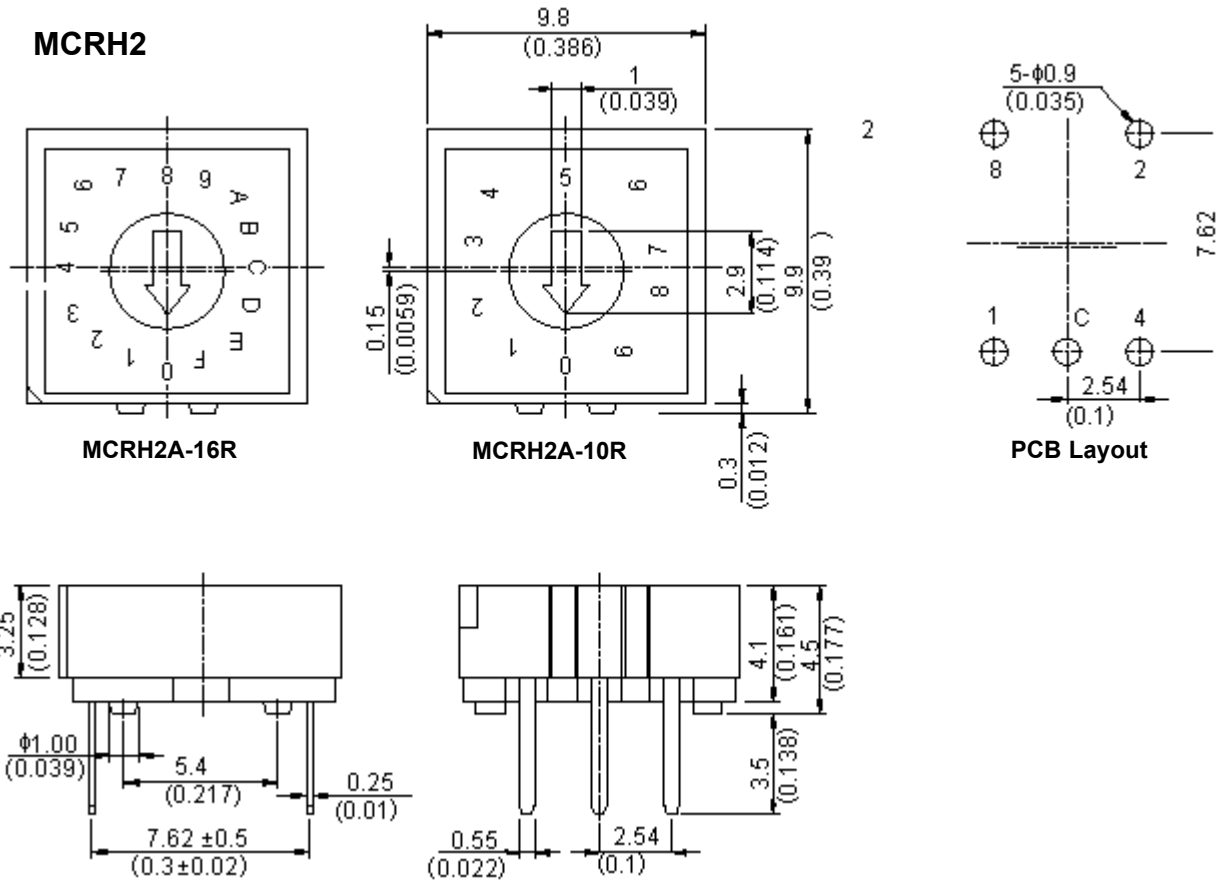


# Rotary Switches

## Dual In Line Type



Dimensions : Millimetres (Inches)

### Truth Table

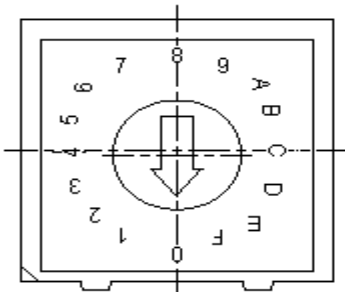
O Real Code				
Position	Code			
	1	2	4	8
0	●	●	●	●
1	○	●	●	●
2	●	○	●	●
3	○	○	●	●
4	●	●	○	●
5	○	●	○	●
6	●	○	○	●
7	○	○	○	●
8	●	●	●	○
9	○	●	●	○
A	●	○	●	○
B	○	○	●	○
C	●	●	○	○
D	○	●	○	○
E	●	○	○	○
F	○	○	○	○



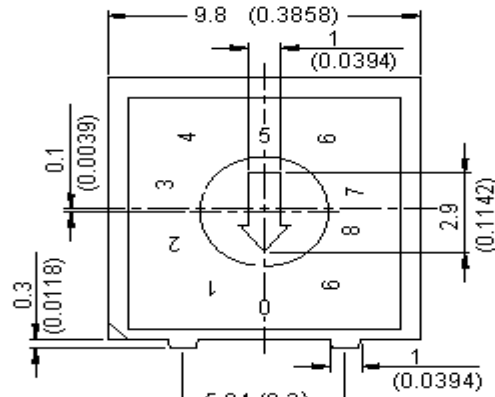
# Rotary Switches

## Dual In Line Type

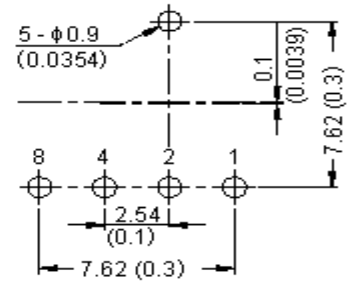
### MCRH4



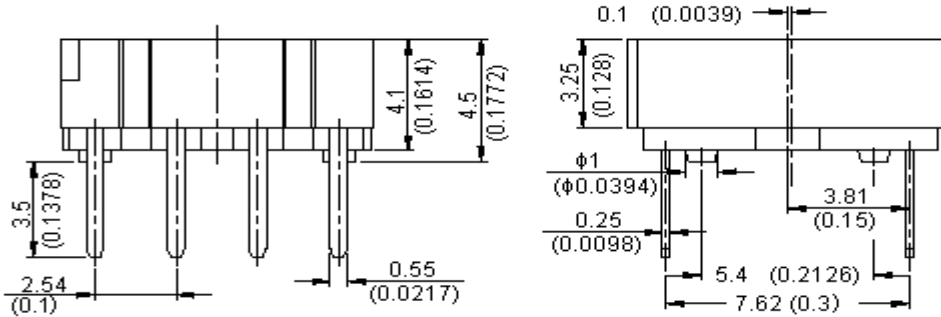
MCRH4A-16R



MCRH4A-10R

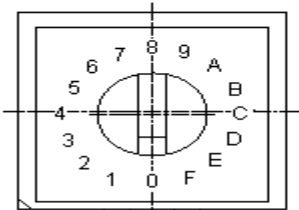


PCB Layout

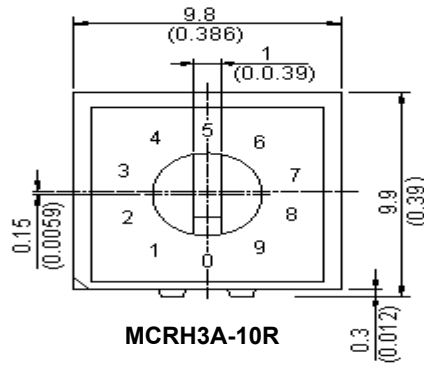


Dimensions : Millimetres (Inches)

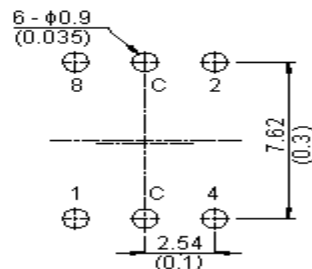
### MCRH3



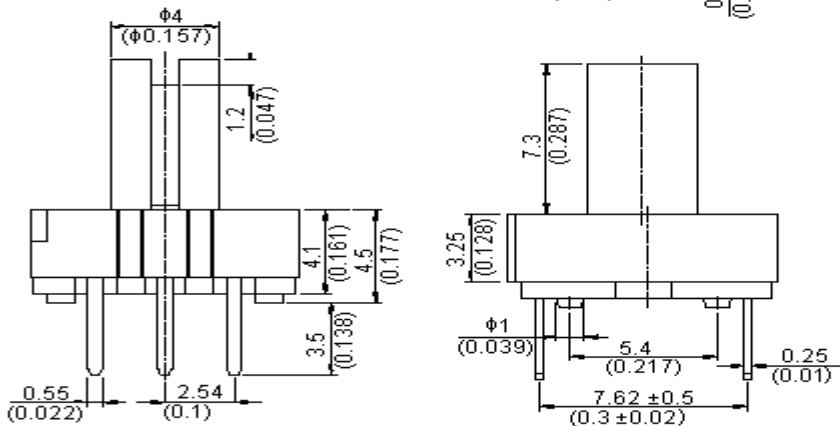
MCRH3A-16R



MCRH3A-10R



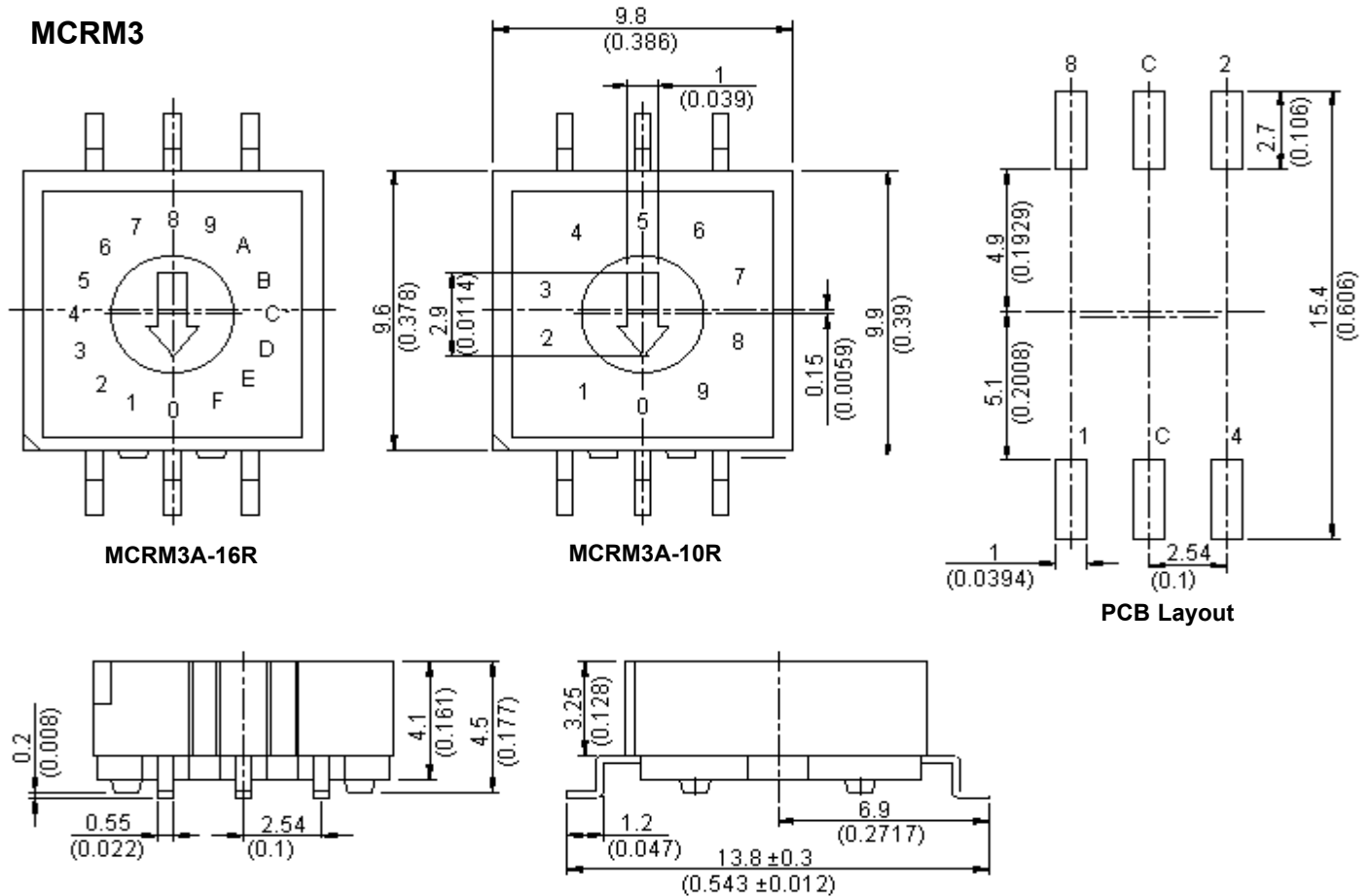
PCB Layout



Dimensions : Millimetres (Inches)

# Rotary Switches

## Dual In Line Type



Dimensions : Millimetres (Inches)

### Specifications:

#### Mechanical:

Mechanical life : 200 mΩ maximum, 20,000 steps  
 Maximum operating force : 400 gf

#### Environmental:

Operating temperature range : -25°C to +80°C  
 Storage temperature range : -40°C to +85°C

#### Electrical:

Electrical life : 200 mΩ maximum, 20,000 steps  
 Non-Switching rating : 100 mA, 50 V dc  
 Switching rating : 25 mA, 24 V dc  
 Contact resistance : 100 mΩ maximum (initial)  
 : 200 mΩ (final - after test)

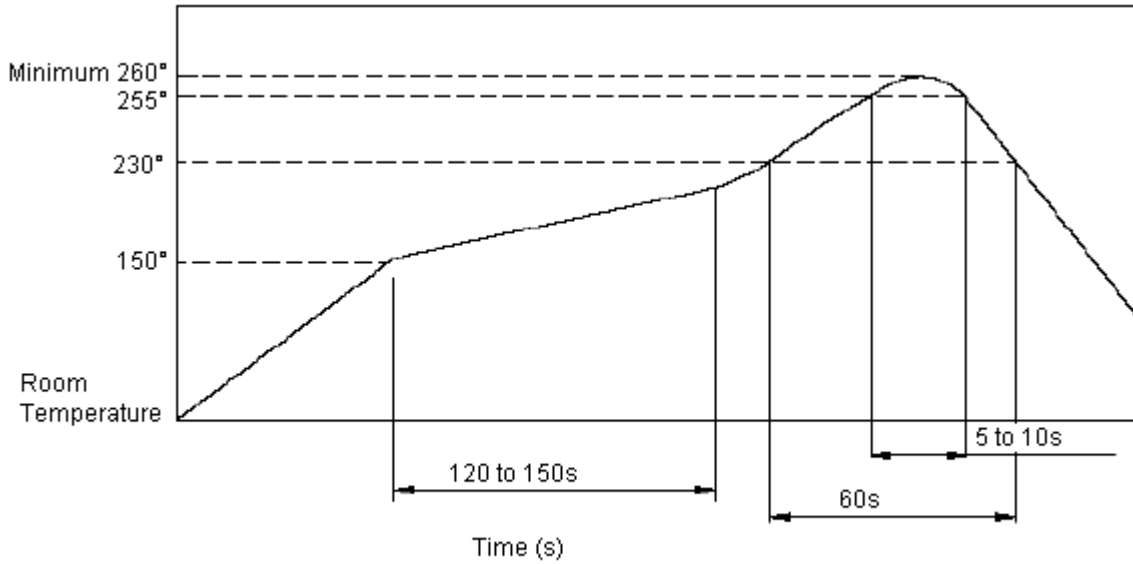
Minimum insulation resistance : 100 MΩ at 250 V dc  
 Voltage proof : 250 V ac for 1 minute

#### Materials:

Base and cover : UL 94V-0 nylon thermoplastic  
 Colour : Black  
 Actuator : UL 94V-0 LCP thermoplastic  
 Colour : White  
 Contact : Alloy copper with gold plated over nickel  
 Terminal : Brass with gold plated

# Rotary Switches

## Dual In Line Type



**Reflow Temperature Profile**

### Soldering Process:

**Hand Soldering** : Use a soldering iron of 30 watts, controlled at (350°C) approximately maximum 5 seconds

**Wave Soldering** : Recommended temperature at 500°F (260°C) maximum of 5 s (for through hole type)

**Reflow Soldering** : When applying reflow soldering, the peak temperature or the reflow oven should be set at 260°C maximum

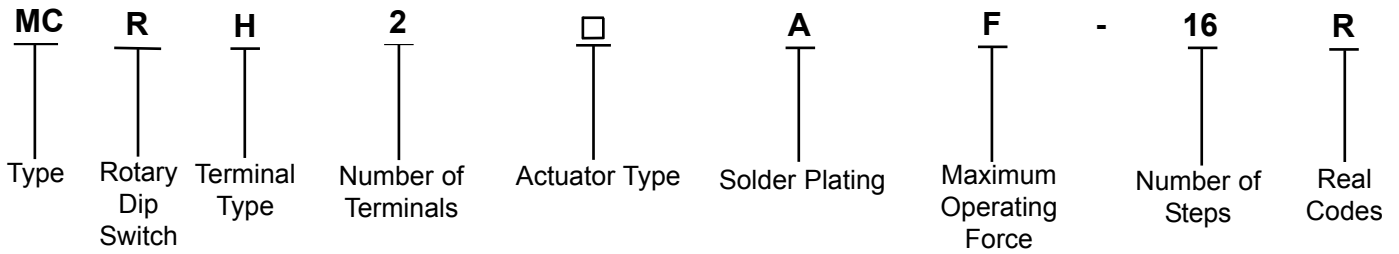
### Part Number Table

Description	Part Number
Rotary Dip Switch	MCRH4AF-10R
Rotary Dip Switch	MCRH3AF-10R
Rotary Dip Switch	MCRH2AF-10R
Rotary Dip Switch	MCRH4AF-16R
Rotary Dip Switch	MCRH3AF-16R
Rotary Dip Switch	MCRH2AF-16R
Rotary Dip Switch, SMD	MCRM4AF-10R
Rotary Dip Switch, SMD	MCRM3AF-10R
Rotary Dip Switch, SMD	MCRM2AF-10R
Rotary Dip Switch, SMD	MCRM4AF-16R
Rotary Dip Switch, SMD	MCRM3AF-16R
Rotary Dip Switch, SMD	MCRM2AF-16R

# Rotary Switches

## Dual In Line Type

### Part Number Explanation:



- Terminal Type** : H = Through Hole  
                          M = SMT
- Number of Terminals** : 2 = 3 × 2  
                              3 = 3 × 3  
                              4 = 4 × 1
- Actuator Type** : □ = Recessed Actuator
- Solder Plating** : A = Terminal : Gold Plated Over Nickel
- Maximum Operating Force** : 200gf cm
- Number of Steps** : 10 = 10 Steps  
                          16 = 16 Steps

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