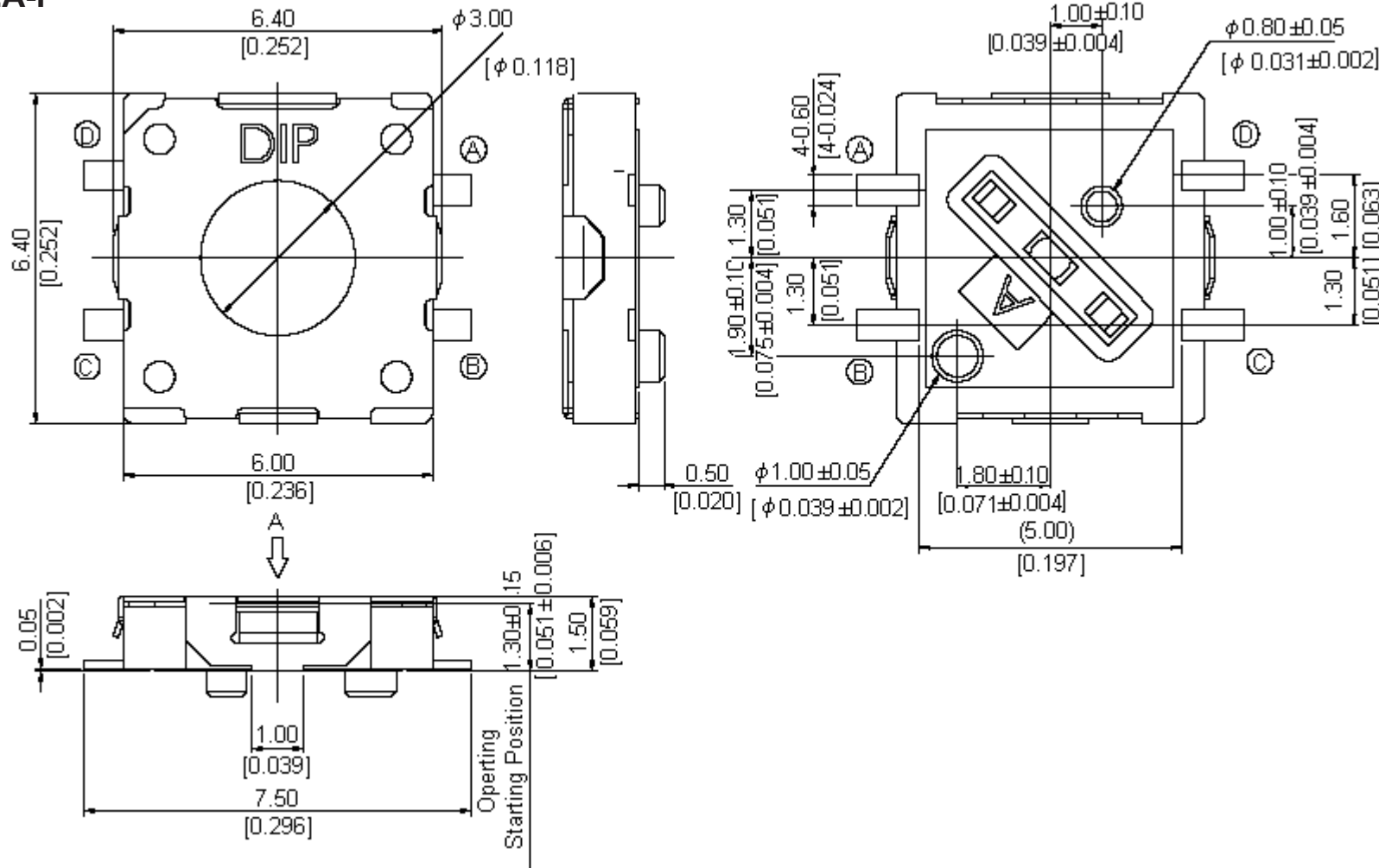


REVISIONS

| ECN # | REV | DESCRIPTION | DRAWN  | DATE    | CHECKD | DATE    | APPRVD | DATE    |
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| -     | A   | RELEASED    | Sumana | 17/3/08 | Suresh | 17/3/08 | G. C   | 01/4/08 |

MC2A-F



Dimensions : Millimetres (Inches)

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| Suresh              | 17/03/08     |
| <b>APPROVED BY:</b> | <b>DATE:</b> |
| G.Cook              | 01/04/08     |

**DRAWING TITLE:**

**Tactile Switches - Double Action**

|                   |                             |                                    |                      |
|-------------------|-----------------------------|------------------------------------|----------------------|
| <b>SIZE</b><br>A  | <b>DWG NO.</b><br>M10000812 | <b>ELECTRONIC FILE</b><br>2A-V_DWG | <b>REV</b><br>A      |
| <b>SCALE:</b> NTS |                             | <b>U.O.M.:</b> mm (Inches)         | <b>SHEET:</b> 1 OF 7 |



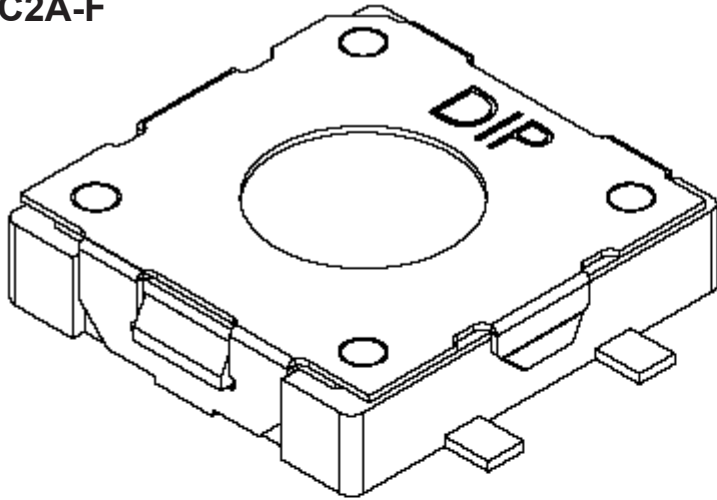
PART NO.

MC2A Series

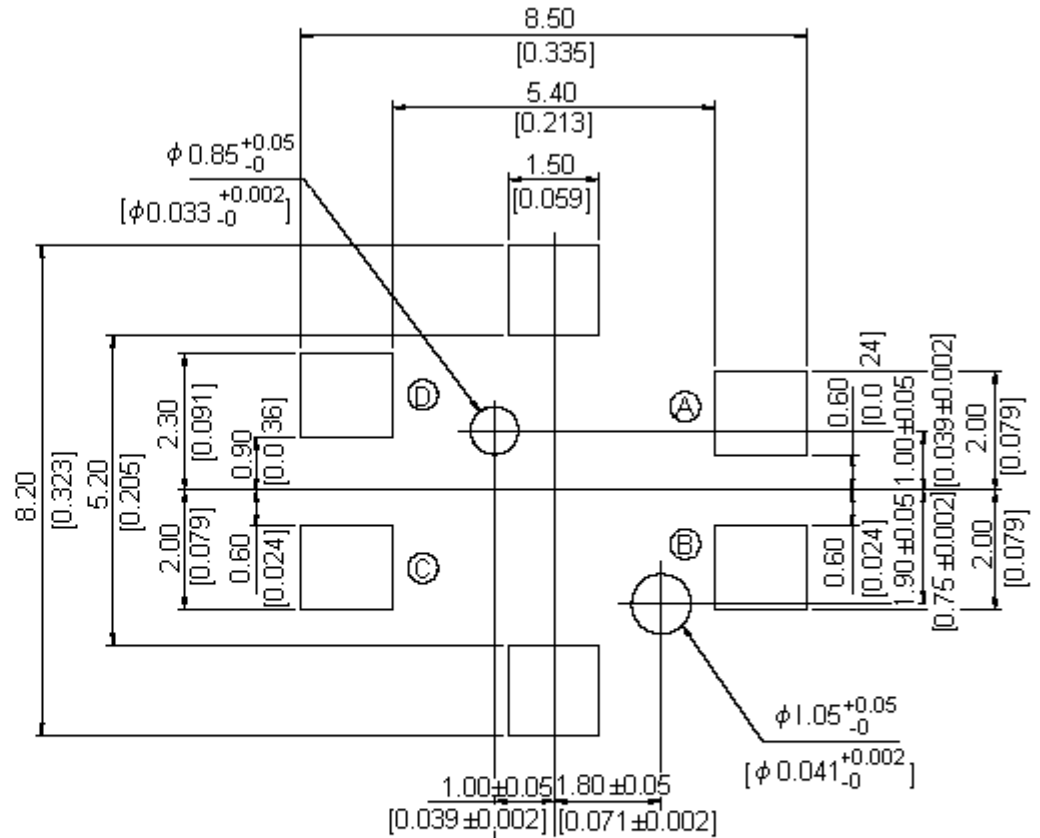
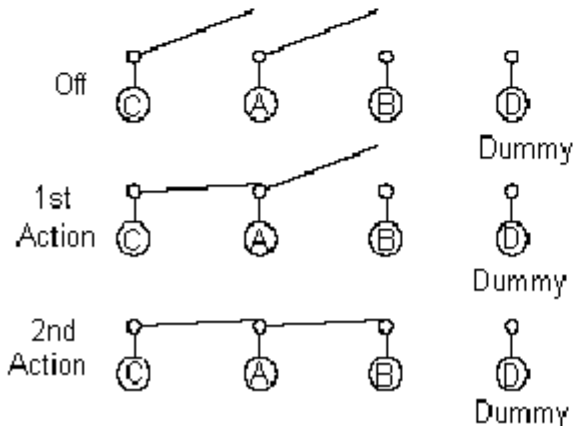
REVISIONS

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|-------|-----|-------------|--------|---------|--------|---------|--------|---------|
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MC2A-F



Circuit



PCB Layout  
View from the Direction A

Dimensions : Millimetres (Inches)

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| Suresh              | 17/03/08     |
| <b>APPROVED BY:</b> | <b>DATE:</b> |
| G.Cook              | 01/04/08     |

**DRAWING TITLE:**

**Tactile Switches - Double Action**

|                   |                             |                                    |                      |
|-------------------|-----------------------------|------------------------------------|----------------------|
| <b>SIZE</b><br>A  | <b>DWG NO.</b><br>M10000812 | <b>ELECTRONIC FILE</b><br>2A-V_DWG | <b>REV</b><br>A      |
| <b>SCALE: NTS</b> |                             | <b>U.O.M.: mm (Inches)</b>         | <b>SHEET: 2 OF 7</b> |



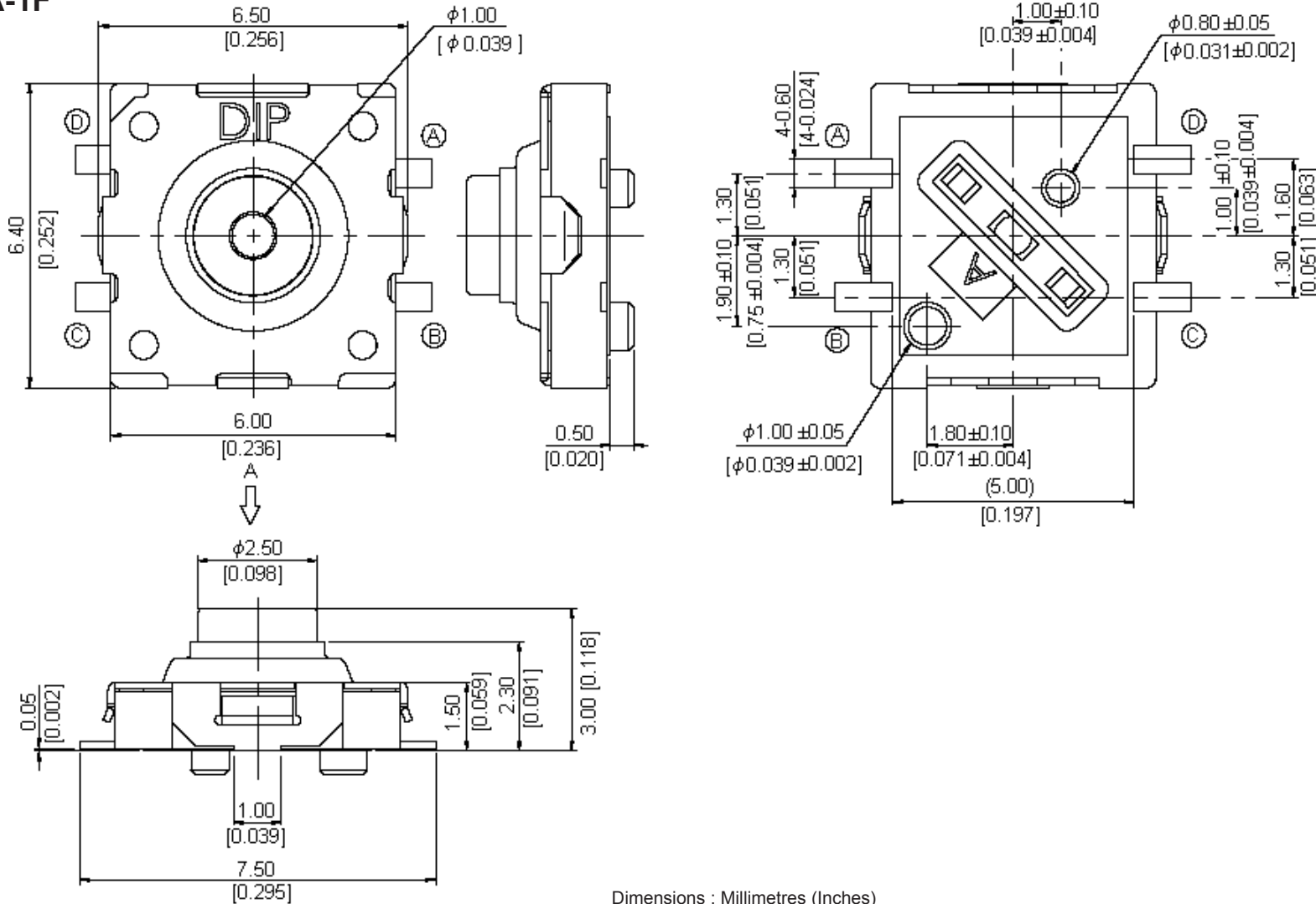
PART NO.

MC2A Series

REVISIONS

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|-------|-----|-------------|--------|---------|--------|---------|--------|---------|
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MC2A-1F



Dimensions : Millimetres (Inches)

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| Suresh              | 17/03/08     |
| <b>APPROVED BY:</b> | <b>DATE:</b> |
| G.Cook              | 01/04/08     |

**DRAWING TITLE:**

**Tactile Switches - Double Action**

|                   |                             |                                    |                      |
|-------------------|-----------------------------|------------------------------------|----------------------|
| <b>SIZE</b><br>A  | <b>DWG NO.</b><br>M10000812 | <b>ELECTRONIC FILE</b><br>2A-V_DWG | <b>REV</b><br>A      |
| <b>SCALE: NTS</b> |                             | <b>U.O.M.: mm (Inches)</b>         | <b>SHEET: 3 OF 7</b> |



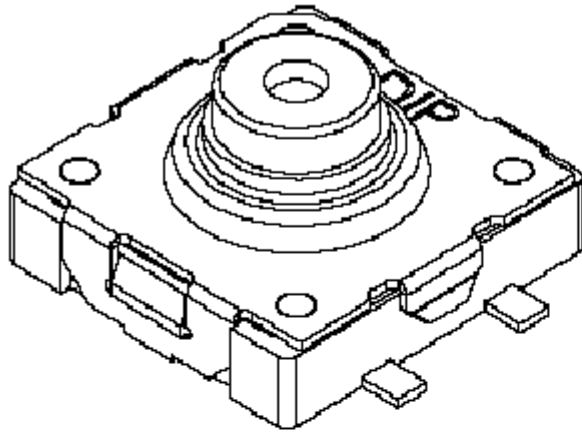
PART NO.

MC2A Series

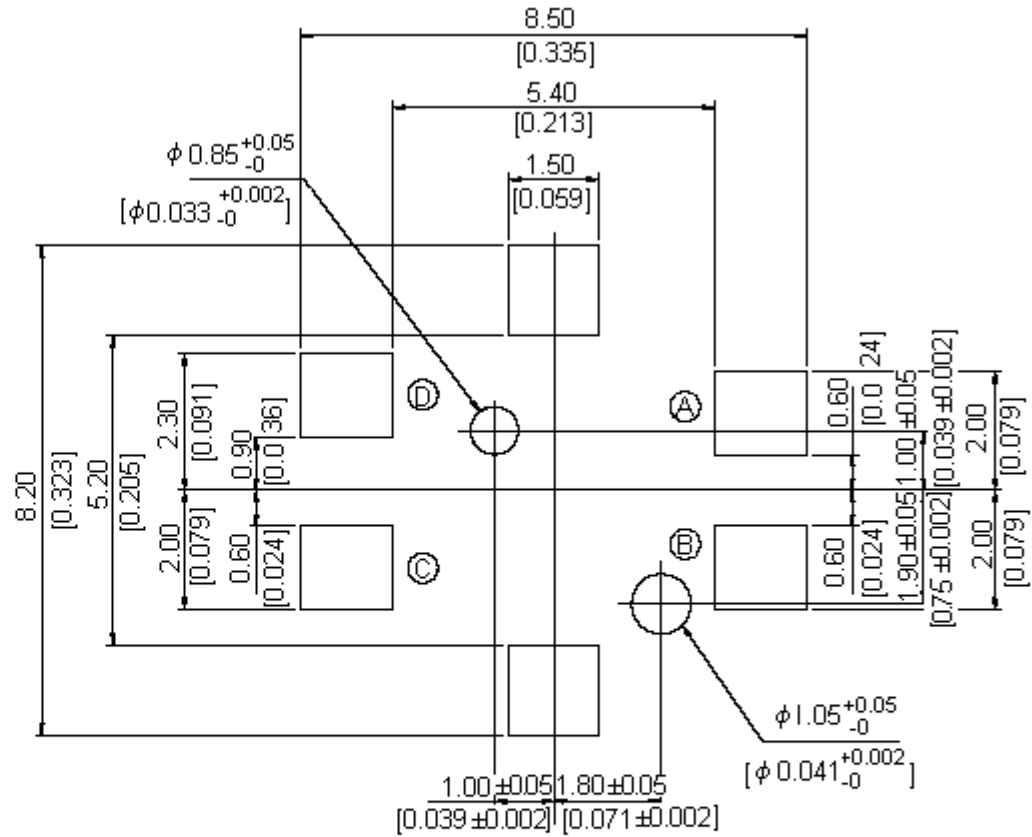
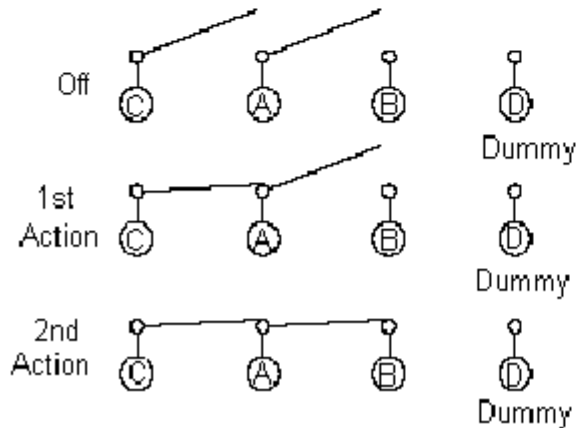
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| ECN # | REV | DESCRIPTION | DRAWN  | DATE    | CHECKD | DATE    | APPRVD | DATE    |
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| -     | A   | RELEASED    | Sumana | 17/3/08 | Suresh | 17/3/08 | G. C   | 01/4/08 |

MC2A-1F



Circuit



PCB Layout  
View from the Direction A

Dimensions : Millimetres (Inches)

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| <b>APPROVED BY:</b> | <b>DATE:</b> |
| G.Cook              | 01/04/08     |

|   |                  |                            |                      |
|---|------------------|----------------------------|----------------------|
| <b>DRAWING TITLE:</b>                   |                  |                            |                      |
| <b>Tactile Switches - Double Action</b> |                  |                            |                      |
| <b>SIZE</b>                             | <b>DWG NO.</b>   | <b>ELECTRONIC FILE</b>     | <b>REV</b>           |
| <b>A</b>                                | <b>M10000812</b> | 2A-V_DWG                   | <b>A</b>             |
| <b>SCALE: NTS</b>                       |                  | <b>U.O.M.: mm (Inches)</b> | <b>SHEET: 4 OF 7</b> |



PART NO.

MC2A Series

REVISIONS

| ECN # | REV | DESCRIPTION | DRAWN  | DATE    | CHECKD | DATE    | APPRVD | DATE    |
|-------|-----|-------------|--------|---------|--------|---------|--------|---------|
| -     | A   | RELEASED    | Sumana | 17/3/08 | Suresh | 17/3/08 | G. C   | 01/4/08 |

**Specifications:**

**Mechanical:**

Operating force : 1<sup>st</sup>: 100 ±50gf.  
 2<sup>nd</sup>: 260 ±70gf / -50gf.  
 Stroke : 1<sup>st</sup>: 0.50 ±0.10 / -0.20mm.  
 2<sup>nd</sup>: 0.70 ±0.10 / -0.30mm.

Operating temperature range : -25 to +70°C.  
 Storage temperature : -30 to +80°C.

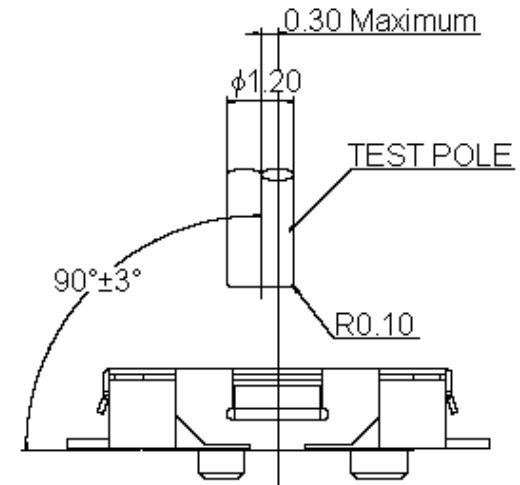
**Electrical:**

Electrical life : 30,000 cycles.  
 Rating : 50mA, 12V dc.  
 Maximum contact resistance : 100mΩ.  
 Minimum insulation resistance : 100MΩ at 100V dc.  
 Dielectric strength : 250V ac/1 minute.  
 Contact arrangement : 1 pole 2 throw.

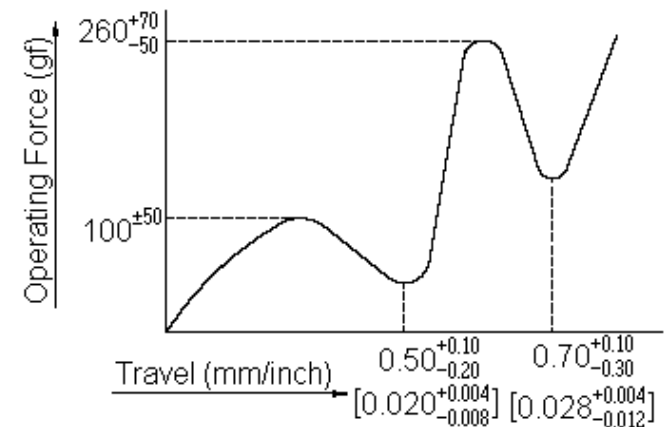
**Materials:**

Cover : Nickel silver.  
 Base : UL 940V-0 Nylon high-temperature thermoplastic.  
 Colour : Black.  
 Dust cover : PTFE.  
 Colour : White.  
 Terminal : Stainless with silver cladding.  
 Stem : UL 940V-0 Nylon high-temperature thermoplastic.  
 Colour : Black.

**Recommended Operating Conditions**



**Operating Force - Travel Chart**



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| G.Cook              | 01/04/08     |

**DRAWING TITLE:**

Tactile Switches - Double Action

|                   |                             |                                    |                      |
|-------------------|-----------------------------|------------------------------------|----------------------|
| <b>SIZE</b><br>A  | <b>DWG NO.</b><br>M10000812 | <b>ELECTRONIC FILE</b><br>2A-V_DWG | <b>REV</b><br>A      |
| <b>SCALE:</b> NTS |                             | <b>U.O.M.:</b> mm (Inches)         | <b>SHEET:</b> 2 OF 7 |

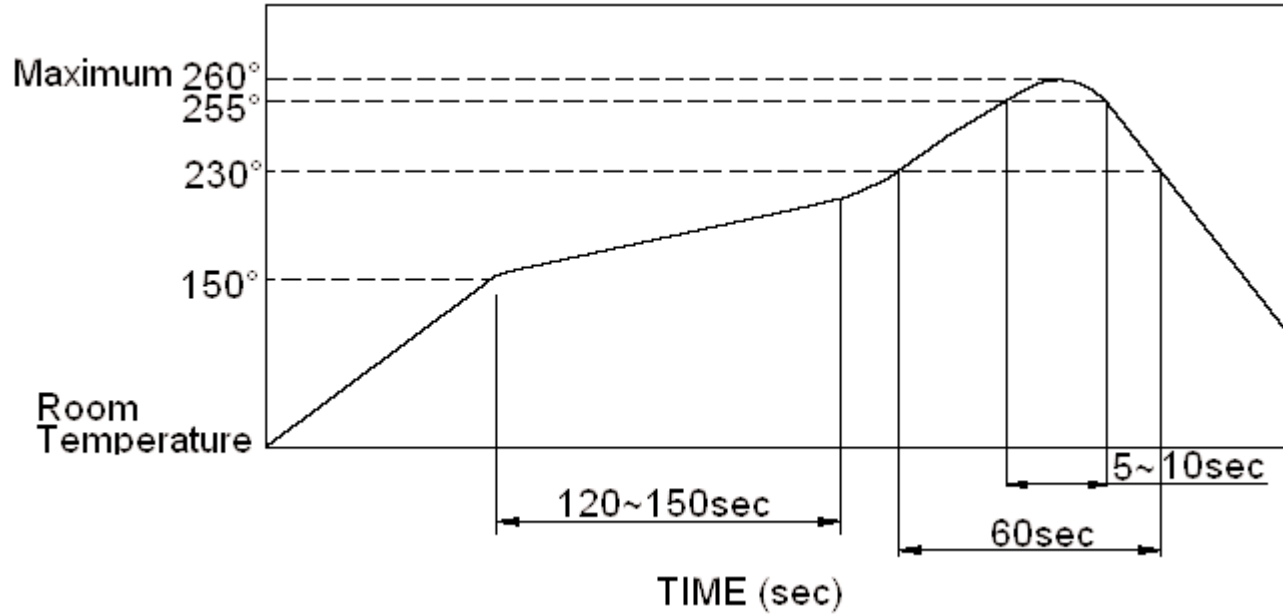


PART NO.

MC2A Series

REVISIONS

| ECN # | REV | DESCRIPTION | DRAWN  | DATE    | CHECKD | DATE    | APPRVD | DATE    |
|-------|-----|-------------|--------|---------|--------|---------|--------|---------|
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Reflow Temperature Profile

**Soldering Process:**

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

**Reflow soldering:** When applying reflow soldering, the peak temperature of the reflow Oven should be set at 260°C maximum.

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| <b>APPROVED BY:</b> | <b>DATE:</b> |
| G.Cook              | 01/04/08     |

**DRAWING TITLE:**

Tactile Switches - Double Action

|                   |                             |                                    |                      |
|-------------------|-----------------------------|------------------------------------|----------------------|
| <b>SIZE</b><br>A  | <b>DWG NO.</b><br>M10000812 | <b>ELECTRONIC FILE</b><br>2A-V_DWG | <b>REV</b><br>A      |
| <b>SCALE: NTS</b> |                             | <b>U.O.M.: mm (Inches)</b>         | <b>SHEET: 6 OF 7</b> |



PART NO.

MC2A Series

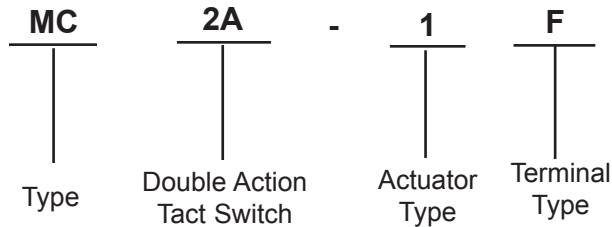
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|       |     |             |        |         |        |         |        |         |

Part Number Table

| Description                       | Part Number |
|-----------------------------------|-------------|
| Switch, Tactile Double Action SMD | MC2A-F      |
| Switch, Tactile Double Action SMD | MC2A-1F     |

Part Number Explanation:



**Actuator Type** :  = Without Actuator.  
 1 = Actuator H: 3.0mm.

**Terminal Type** : F = Flat

<http://www.farnell.com>  
<http://www.newark.com>  
<http://www.cpc.co.uk>

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|   |                  |                            |                      |
|---|------------------|----------------------------|----------------------|
| <b>DRAWING TITLE:</b>                   |                  |                            |                      |
| <b>Tactile Switches - Double Action</b> |                  |                            |                      |
| <b>SIZE</b>                             | <b>DWG NO.</b>   | <b>ELECTRONIC FILE</b>     | <b>REV</b>           |
| <b>A</b>                                | <b>M10000812</b> | 2A-V_DWG                   | <b>A</b>             |
| <b>SCALE: NTS</b>                       |                  | <b>U.O.M.: mm (Inches)</b> | <b>SHEET: 7 OF 7</b> |