



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Rotary DIP Switches, Low Profile, Process Sealed, 7MM, Through Hole and Surface Mount

### FEATURES:

- 40% PCB area space savings over standard rotary dips
- 50% Lower in profile than standard rotary dips
- Hexadecimal or binary code, complement available
- Deflection temperature of 250°C for SMT reflow soldering
- Gold contacts, tin/lead terminals
- Sealed "O" ring design

### MATERIAL SPECIFICATIONS:

Fixed Contacts/Terminals.....Brass, gold plated / tin/lead  
 Moving Contacts.....BeCu, gold plated  
 Case Material .....PPS UL94V-0  
 Rotor .....Nylon UL94V-0  
 Cover Material .....PPS UL94V-0  
 O-Ring .....Fluoro Rubber

### ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature.....-10°C to +85°C  
 Storage Temperature.....-45°C to +100°C  
 Solder Heat Resistance .....MIL-STD 202F, Method 210  
 IR Process Capability .....EIA-364-56 Level II (250°C peak)

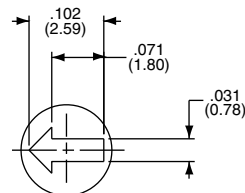
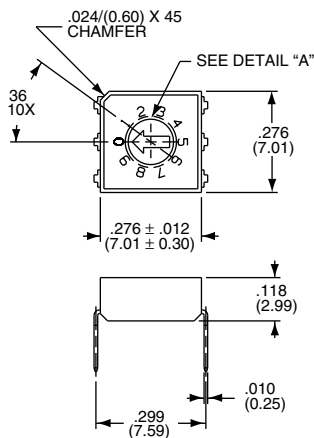
### TYPICAL PERFORMANCE CHARACTERISTICS:

Contact Rating .....0.4 VA Max. @ 20 VDC  
 Initial Contact Resistance.....50m Max. @ 2 VDC 10mA  
 Insulation Resistance .....1,000 Megohms max.  
 Dielectric Strength .....300 VAC for 1 minute  
 Actuator Travel.....36° 10 Position, 22.5° 16 position  
 Operating Force .....200 Grams avg.  
 Life Expectancy .....20,000 Steps, mechanical

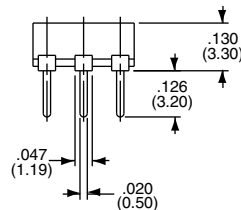
A

MRD Shunts

#### P.C. MOUNT



DETAIL "A"  
SCALE 8:1



MRD10



MRD10S

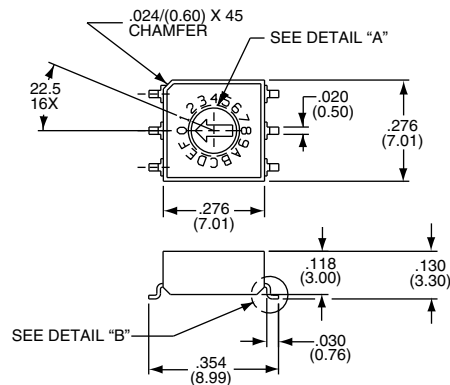


MRD16C

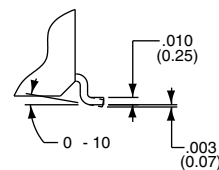


MRD16S

#### SURFACE MOUNT

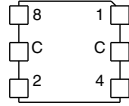


DETAIL "B"  
SCALE 8:1

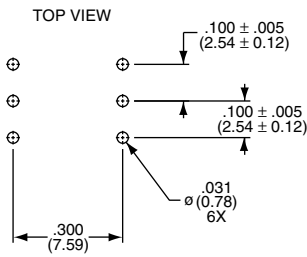


## Rotary DIP Switches, Low Profile, Process Sealed, 7MM, Through Hole and Surface Mount

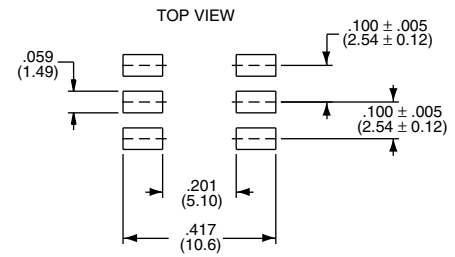
**TERMINAL IDENTIFICATION**  
VIEWED FROM BOTTOM SWITCH



**P.C. LAYOUT (THRU HOLE)**



**P.C. LAYOUT (SURFACE MOUNT)**



### TRUTH TABLES

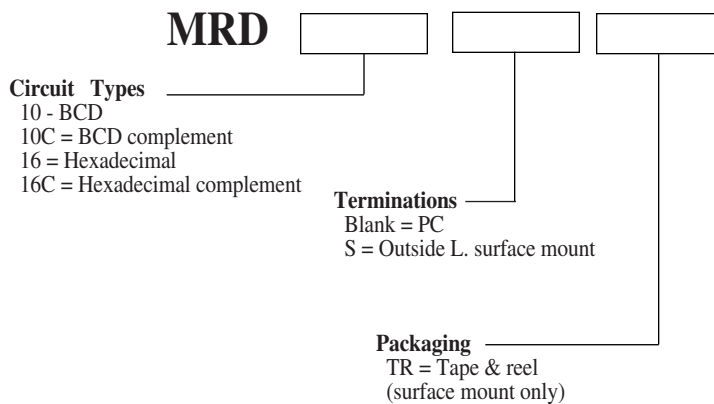
| 10-Position, BCD (red actuator) |   |   |   |   |   |   |   |   |   |   |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|
| Pos.                            | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| C                               | X | X | X | X | X | X | X | X | X | X |
| 1                               |   | X |   | X |   | X |   | X |   | X |
| 2                               |   |   | X | X |   | X | X |   |   |   |
| 4                               |   |   |   |   | X | X | X | X |   |   |
| 8                               |   |   |   |   |   |   |   |   | X | X |

| 16-Position, Hexadecimal (green actuator) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pos.                                      | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
| C                                         | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 1                                         |   | X |   | X |   | X |   | X |   | X |   | X |   | X |   | X |
| 2                                         |   |   | X | X |   |   | X | X |   |   | X | X |   |   | X | X |
| 4                                         |   |   |   |   | X | X | X | X |   |   |   |   | X | X | X | X |
| 8                                         |   |   |   |   |   |   |   |   | X | X | X | X | X | X | X | X |

| 10-Position, BCD Complement (orange actuator) |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------------------|---|---|---|---|---|---|---|---|---|---|
| Pos.                                          | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| C                                             | X | X | X | X | X | X | X | X | X | X |
| 1                                             | X |   | X |   | X |   | X |   | X |   |
| 2                                             | X | X |   |   | X | X |   |   | X | X |
| 4                                             | X | X | X | X |   |   |   |   | X | X |
| 8                                             | X | X | X | X | X | X | X | X |   |   |

| 16-Position Hexadecimal Complement (white actuator) |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pos.                                                | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
| C                                                   | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 1                                                   | X |   | X |   | X |   | X |   | X |   | X |   | X |   | X |   |
| 2                                                   | X | X |   |   | X | X |   |   | X | X |   |   | X | X |   |   |
| 4                                                   | X | X | X | X |   |   |   |   | X | X | X | X |   |   |   |   |
| 8                                                   | X | X | X | X | X | X | X | X |   |   |   |   |   |   |   |   |

### HOW TO ORDER



| Color Code   |                |
|--------------|----------------|
| Circuit Type | Actuator Color |
| 10           | Red            |
| 10C          | Orange         |
| 16           | Green          |
| 16C          | White          |