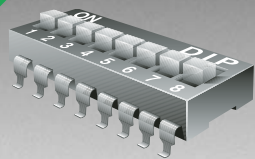


\*RoHS COMPLIANT



**BOURNS®**

## Features

- Double contacts
- Low contact resistance
- Self-clean on contact area
- Vapor phase solderable, IR-reflow solderable
- Terminal plating by gold gives excellent results when soldering
- RoHS compliant\*



The SDM Series is currently available, although not recommended for new designs.

# SDM Series Surface Mount DIP Switch

### Electrical Characteristics

Electrical Life .....2,000 operations min. per switch, 24 VDC, 25 mA  
 Non-Switching Rating .....100 mA, 50 VDC  
 Switching Rating .....25 mA, 24 VDC  
 Contact Resistance (@ current 100mA)  
 .....50 milliohms max. at initial  
 100 milliohms max. after life test  
 Insulation Resistance  
 .....100 megohms min. at 500 ±15 VDC  
 Dielectric Strength .....500 VDC/minute  
 Capacitance .....5 pF max. between adjacent closed switch  
 Circuit .....Single pole single throw

### Environmental Characteristics

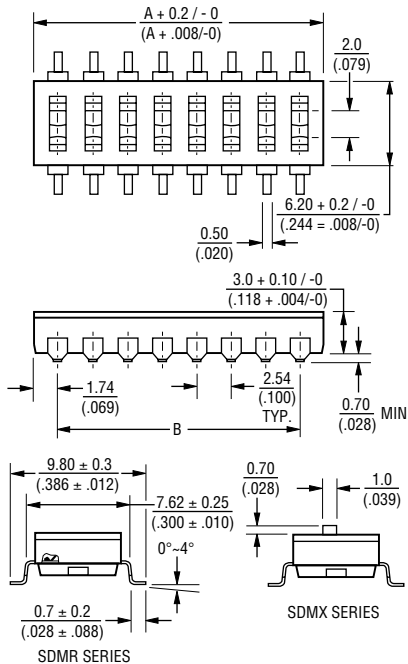
Mechanical Life ..2,000 operations per switch  
 Operation Force .....1000 gf max.  
 Stroke .....1.0 mm  
 Operating Temp. Range....-20 °C to +70 °C  
 Storage Temperature .....-40 °C to +85 °C  
 Vibration Test .....MIL-STD-202F, Method 201A  
 Frequency .....10-55-10 Hz/1 minute  
 Directions .....X,Y,Z, three mutually perpendicular directions.  
 Time.....2 hours each direction.  
 High reliability  
 Shock Test .....MIL-STD-202F, Method 213B, Condition A  
 Gravity .....50 G (peak value), 11 msec  
 Direction & Times.....6 sides and 3 times in each direction.  
 High reliability

### Physical Characteristics

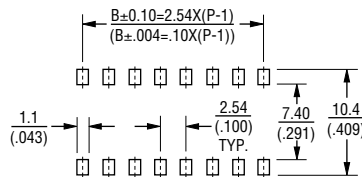
Base and Cover Materials  
 ..UL94V-0 PPS plus glass fiber reinforced  
 Color .....Black  
 Actuator Materials .....Nylon plus glass fiber reinforced  
 Color .....White  
 Contact Materials .....Alloy copper  
 Terminal Materials .....Brass  
 Contact Plating Materials ....3 micro inches gold plating over 40 micro inches nickel  
 Terminal Plating Materials .....Gold  
 Soldering Process .....Vapor phase and IR-reflow soldering can be applied  
 Standard Packaging  
 .....IC tubes/all poles in the "off" position

### Product Dimensions

#### SDM Series



#### RECOMMENDED PCB LAYOUT



#### SCHEMATIC (TYP.)

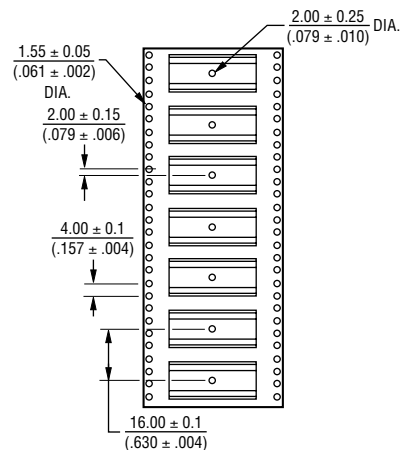
1,2,3,4,5,6,7,8,9,10,12 POSITIONS AVAILABLE



MODEL NO.	POSITIONS	DIM. A	DIM. B
SDM-12	12	31.42	27.94
SDM-10	10	26.34	22.86
SDM-8	8	21.26	17.78
SDM-6	6	16.18	12.70
SDM-4	4	11.10	7.62
SDM-2	2	6.02	2.54

DIMENSIONS:  $\frac{MM}{(IN)}$

### Packaging Specifications



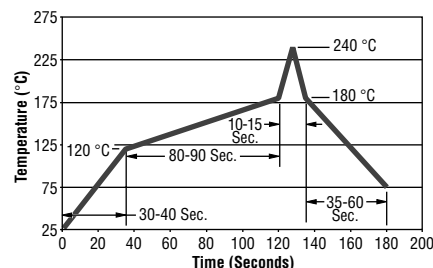
POLE	TAPE SIZE (W)
2,3	16 mm
4,5,6	24 mm
7,8	32 mm
9,10,12	44 mm

### How to Order

**SDM R - 2 - T R**

Model \_\_\_\_\_  
 Actuator  
 • X = Raised Actuator  
 • R = Recessed Actuator  
 Number of Positions  
 • 1 = 1 Position  
 • 2 = 2 Positions  
 • 3 = 3 Positions  
 • 4 = 4 Positions  
 • 5 = 5 Positions  
 • 6 = 6 Positions  
 • 7 = 7 Positions  
 • 8 = 8 Positions  
 • 9 = 9 Positions  
 • 10 = 10 Positions  
 • 12 = 12 Positions  
 Seal  
 • X = Standard (Not Sealed)  
 • T = Top Tape Sealed ("R" Actuator only)  
 Packaging Option  
 (Top Sealed, Recessed only)  
 • R = Tape and Reel Packaging (900 pcs./reel)

### Reflow Soldering Profile



REV. 02/06

\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex. Specifications are subject to change without notice.

Customers should verify actual device performance in their specific applications.