

**BOURNS®**

## Features

- Normal open contact system
- Low contact resistance
- High reliability
- Self-clean on contact area

## Applications

- PC interface boards
- LANs
- Auto dialing systems
- Remote controlled systems

# SDS/SDP/SDA Series Slide DIP Switch

### Electrical Characteristics

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

### Environmental Characteristics

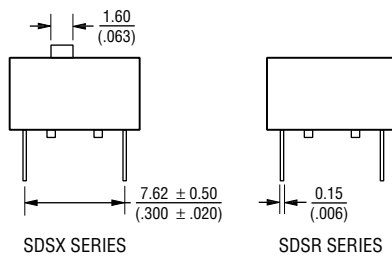
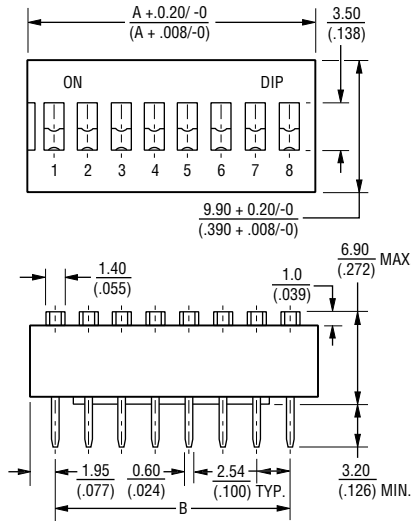
Mechanical Life...2,000 operations per switch  
Operation Force .....800g max.  
Stroke.....2.0mm  
Operating Temp. Range.....-40°C to +85°C  
Storage Temperature.....-40°C to +85°C  
Vibration Test .....MIL-STD-202F,  
Method 201A  
Frequency .....10-55-10 Hz/1 minute  
Directions .....X,Y,Z, three mutually  
perpendicular directions  
Time .....2 hours each direction.  
High reliability  
Shock Test .....MIL-STD-202F,  
Method 213B, Condition A  
Gravity .....50G (peak value), 11 msec  
Direction & Times.....6 sides and  
3 times in each direction.  
High reliability

### Physical Characteristics

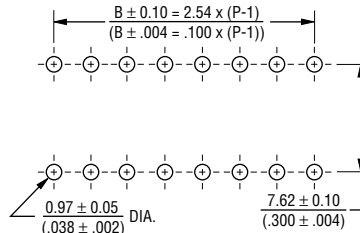
Base and Cover Materials  
...UL94V-0 PBT plus glass fiber reinforced  
Color .....Black base, red cover  
Actuator Materials.....UL94V-0 PBT  
plus glass fiber reinforced  
Color .....White  
Contact Materials ....Phosphor bronze with  
3 micro inches gold plating over nickel  
Top Seal Materials.....Polyester film  
Potting Materials.....Epoxy  
Wave Soldering Process\*  
.....Recommended solder temp. at 260°C  
(500°F) max., 5 sec.  
Hand Soldering Process\*  
.....Use a soldering iron of 30 watts  
or less, controlled at 320°C (608°F) for  
approx. 2 sec. while applying solder  
Cleaning Process\*  
.....Flux clean using force rinse, high  
agitation or triple bath cleaning method.  
Freon TF or TE give excellent results.  
When vapor methods are used, do not  
subject the switch to solvents at  
temperatures above 51°C (125°F).  
Standard Packaging  
.....IC tubes/all poles in the "off" position

### Product Dimensions

#### SDS Series



#### RECOMMENDED PCB LAYOUT

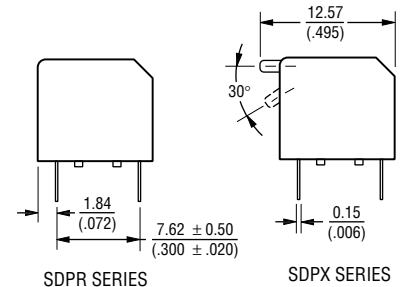
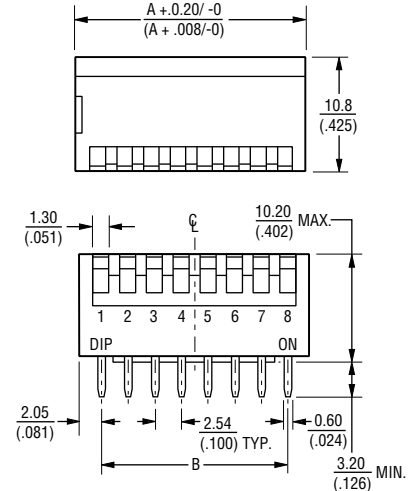


SCHEMATIC (TYP.)  
2,3,4,5,6,7,8,9,10,12 POSITIONS AVAILABLE

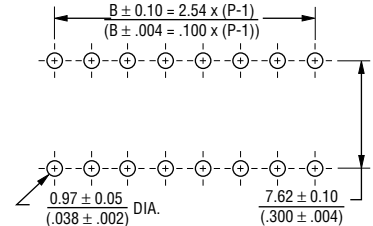


SEE FOLLOWING PAGE FOR A & B DIMENSION CHART.

#### SDP Series



#### RECOMMENDED PCB LAYOUT



SCHEMATIC (TYP.)  
2,3,4,5,6,7,8,9,10,12 POSITIONS AVAILABLE



SEE FOLLOWING PAGE FOR A & B DIMENSION CHART.

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

\*For best results, keep all switch contacts in their "off" position for all operations.