



## Features

- Double contacts offer high reliability
- Low contact resistance
- Self-clean on contact area
- Splay terminals allow for automatic insertion by IC insertion machine
- Straight terminals are available for manual insertion



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

- RoHS compliant\*

## SND Series DIP Switch (Machine Insertable Type)

### 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  
.....50 milliohms max. at initial  
.....100 milliohms max. after life test  
Insulation Resistance.....100 megohms min.  
Dielectric Strength .....500 VAC/minute  
Capacitance .....5 pf max. between  
adjacent closed switch  
Circuit .....Single pole single throw

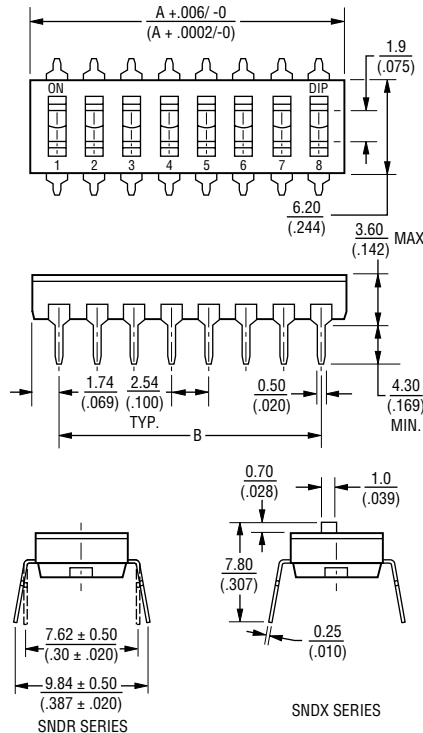
### Environmental Characteristics

Mechanical Life ..2,000 operations per switch  
Operation Force .....1,000 g max.  
Stroke .....1.0 mm  
Operating Temp. Range.....-20 °C to +85 °C  
Storage Temperature .....-40 °C to +85 °C  
Vibration Test .....MIL-STD-202F,  
Method 201A  
Frequency .....10-55-10 Hz/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

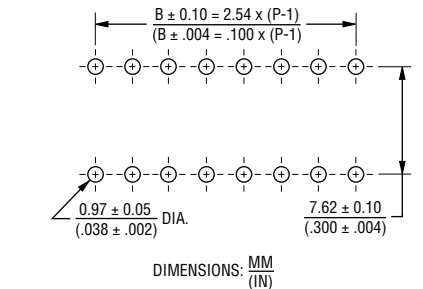
### Physical Characteristics

Base and Cover Materials  
.....UL94V-0 high-temperature  
thermoplastic PPS  
Color .....Black  
Actuator Materials .....UL94V-0 nylon  
thermoplastic  
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  
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  
Standard Packaging  
.....IC tubes/all poles in the "off" position

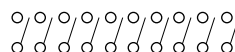
### Product Dimensions



### RECOMMENDED PCB LAYOUT



### SCHEMATIC (TYP.) 1-12 POSITIONS AVAILABLE



### SND Series Dimensions

MODEL NO.	POS.	DIM. A	DIM. B
SND-12	12	31.42 (1.237)	26.94 (1.100)
SND-10	10	26.34 (1.037)	22.86 (.900)
SND-9	9	23.80 (.937)	20.32 (.800)
SND-8	8	21.26 (.837)	17.78 (.700)
SND-7	7	18.72 (.737)	15.24 (.600)
SND-6	6	16.18 (.637)	12.70 (.500)
SND-5	5	13.64 (.537)	10.16 (.400)
SND-4	4	11.10 (.437)	7.62 (.300)
SND-3	3	8.56 (.337)	5.08 (.200)
SND-2	2	6.02 (.237)	2.54 (.100)
SND-1	1	3.48 (.137)	—

### How to Order

Model **SND X - 1 S - X**

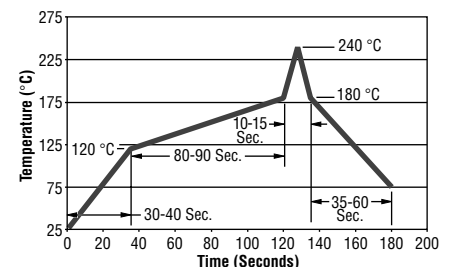
Actuator  
 • X = Raised Actuator  
 • R = Recessed Actuator

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

Terminal Type  
 • S = Splay (Machine Insertion Type)  
 • H = Straight (Manual Insertion Type)

Seal  
 • X = Standard (Not Sealed)  
 • T = Top Tape Sealed  
 ("R" actuator only, excluding 1 position)

### Reflow Soldering Profile



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

\*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.

# SND Series DIP Switch (Machine Insertable Type)

**BOURNS®**

## Packaging Specifications

