

BOURNS®

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

Mechanical Life..2,000 operations per switch
Operation Force1,000 g max.
Stroke1.0 mm
Operating Temp. Range.....-20 °C to +85 °C
Storage Temperature-40 °C to +85 °C
Vibration TestMIL-STD-202F,
Method 201A
Frequency10-55-10 Hz/minute
DirectionsX,Y,Z, three mutually
perpendicular directions
Time.....2 hours each direction.
High reliability
Shock TestMIL-STD-202F,
Method 213B, Condition A
Gravity50 G (peak value), 11 msec
Direction & Times.....6 sides and
3 times in each direction.
High reliability

Base and Cover Materials
.....UL94V-0 high-temperature thermoplastic PPS
 ColorBlack
Actuator MaterialsUL94V-0 nylon thermoplastic
 ColorWhite
Contact MaterialsAlloy copper
Terminal MaterialsBrass
Contact Plating Materials
.....3 micro inches gold plating
 over 40 micro inches nickel
Terminal Plating MaterialsGold
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

- 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)

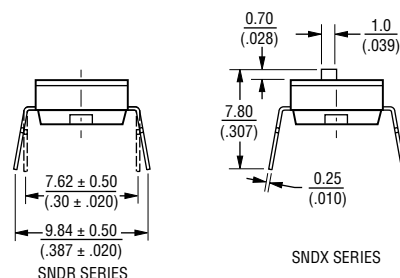
The drawing shows a 16-pin DIP package. The top view shows a rectangular body with 8 pins on each long side, numbered 1 to 8 on one side and 15 to 8 on the other. The pins are labeled 'ON' and 'DIP'. The side view shows the package height and pin dimensions. Dimensions are given in inches and millimeters.

Top View Dimensions:

- Overall width: $A + .006/-0$ ($A + .0002/-0$)
- Pin pitch: 1.74 (.069)
- Pin width: 0.50 (.020)
- Pin spacing: 2.54 (.100) TYP.
- Overall length: B

Side View Dimensions:

- Overall height: 1.9 (.075)
- Pin height: 6.20 (.244)
- Pin diameter: 3.60 (.142) MAX.
- Pin thickness: 4.30 (.169) MIN.



$$\frac{B \pm 0.10 = 2.54 \times (P-1)}{(B \pm .004 = .100 \times (P-1))}$$

$$\frac{0.97 \pm 0.05}{(.038 \pm .002)} \text{ DIA.} \qquad \frac{7.62 \pm 0.10}{(.300 \pm .004)}$$

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

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)	—

SND X - 1 S - X

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

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)

Figure 1 is a line graph showing Temperature (°C) versus Time (Seconds) for the heat treatment of 2024-T3 aluminum. The temperature starts at 25°C at 0 seconds, rises to 120°C by 30-40 seconds, then to 180°C by 80-90 seconds. It peaks at 240°C between 10-15 seconds and then cools back to 180°C by 35-60 seconds. The graph is divided into five temperature-time regions: 25-120°C (30-40 Sec.), 120-180°C (80-90 Sec.), 180-240°C (10-15 Sec.), 240-180°C (35-60 Sec.), and 180-25°C (35-60 Sec.).

†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.

