

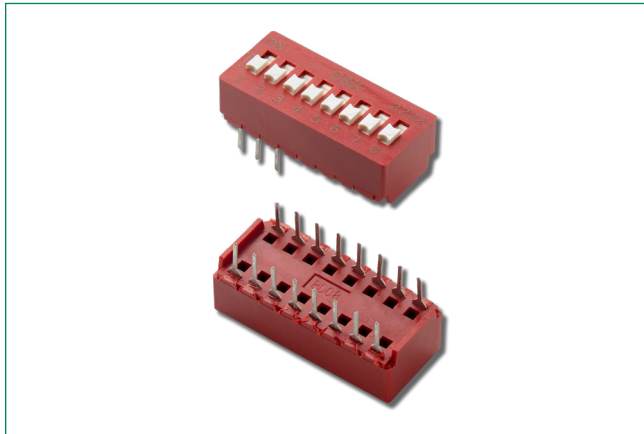


# THE DATASHEET OF BD09



# BD Series

## Standard Profile DIP Switches



### Specifications

<b>Switch Function</b>	SPST - 1 through 12 position available (except 11 position)
<b>Contact Rating</b>	Carry: 100 mA @ 50 V DC max. Switch: 100 mA max. @ 5 V DC or 25 mA max. @ 25 V DC
<b>Mechanical</b>	
<b>Mechanical and Electrical Life</b>	10,000 make-and-break cycles at full load, each circuit.
<b>Contact Resistance</b>	Below 50 milliohms typ. initial @ 2-4 V DC, 100mA.
<b>Insulation Resistance</b>	10 <sup>9</sup> ohms min.
<b>Dielectric Strength</b>	500 V RMS min. @ sea level between adjacent terminals.

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### Description

With an extended actuator for easy actuation and an open bottom construction that allows for solder washing without the need for a tape seal, BD series standard profile DIP switches are used by designers for function controlling, logic switching in computers and peripherals and industrial control address switches.

### Features & Benefits

- Traditional full profile DIP switch
- Extended actuator for easy actuation
- Open bottom construction allows for solder washing without the need for tape seal
- RoHS compliant

### Applications

- Address switch for industrial controls
- Logic switching for computers and peripherals
- Function controlling for numerous applications

### Materials

<b>Case &amp; Cover</b>	Glass filled polyester (PBT), flame retardant (UL 94V-0)
<b>Actuator</b>	Glass filled nylon 6/6, flame retardant, heat stabilized (UL 94V-0)
<b>Contacts</b>	Gold over nickel over phosphor bronze.
<b>Terminals</b>	Matte-tin over nickel over phosphor bronze.

**Note:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

### Environmental Specifications

<b>Storage Temperature</b>	-40°C to 85°C
<b>Operating Temperature</b>	
<b>Capacitance</b>	5pF max. Between adjacent terminals.
<b>Shock</b>	Withstand 20g 11 ms sawtooth waveform with no contact opening greater than 10 microseconds.

### Process

<b>Vibration</b>	No contact opening greater than 10 microseconds and no contact closure when exposed to vibration .06 in DA or 5g, whichever is less, from 10 to 55 Hz, and 10g from 55 to 500 Hz.
<b>Solderability</b>	Per MIL-STD-202F method 208D, or EIA RS-186E method 9 (1 hour steam aging).
<b>Packaging</b>	Switches supplied in rigid dispensing tubes in full-tube quantities only; this may effect order quantity. Number of switches per tube varies with model. Switch position 1 denotes pin number 1. All switch actuators in 'OFF' position, standard.

# BD Series

## Standard Profile DIP Switches



### Ordering Number

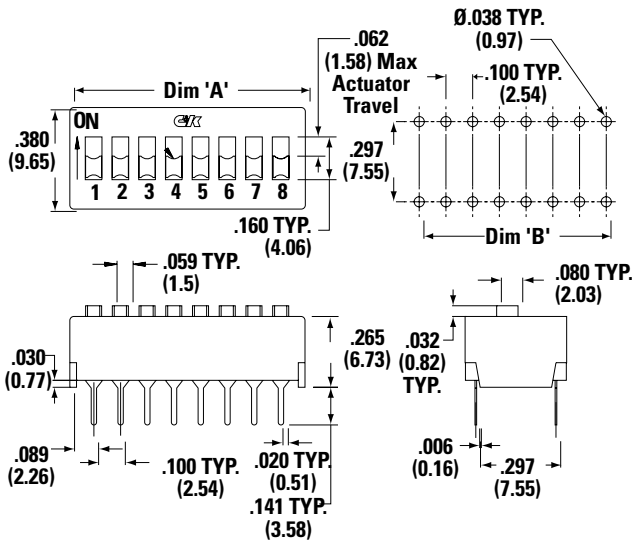
Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.

**BD - xx - xx**

<p><b>Number of Positions</b> _____</p> <p><b>01:</b> (for terminations NONE model only)</p> <p><b>02-10, 12</b></p>	<p><b>Termination</b> _____</p> <p><b>None:</b> Vertical, PC thru-hole</p> <p><b>AV:</b> Right angle, PC thru-hole</p>
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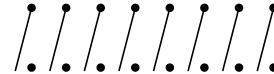
### Vertical Full Profile DIP

#### BD08



ROHS Part #	No. Pos.	DIM 'A'	DIM 'B'	Quantity per Tube
BD01	1	0.180 (4.57)	N/A	115
BD02	2	0.280 (7.11)	0.100 (2.54)	74
BD03	3	0.380 (9.65)	0.200 (5.08)	54
BD04	4	0.480 (12.19)	0.300 (7.62)	43
BD05	5	0.580 (14.73)	0.400 (10.16)	35
BD06	6	0.680 (17.27)	0.500 (12.75)	30
BD07	7	0.780 (19.81)	0.600 (15.24)	26
BD08	8	0.880 (22.35)	0.700 (17.78)	23
BD09	9	0.980 (24.89)	0.800 (20.32)	21
BD10	10	1.080 (27.43)	0.900 (22.86)	19
BD12	12	1.280 (32.51)	1.100 (27.94)	16

Schematic SPST



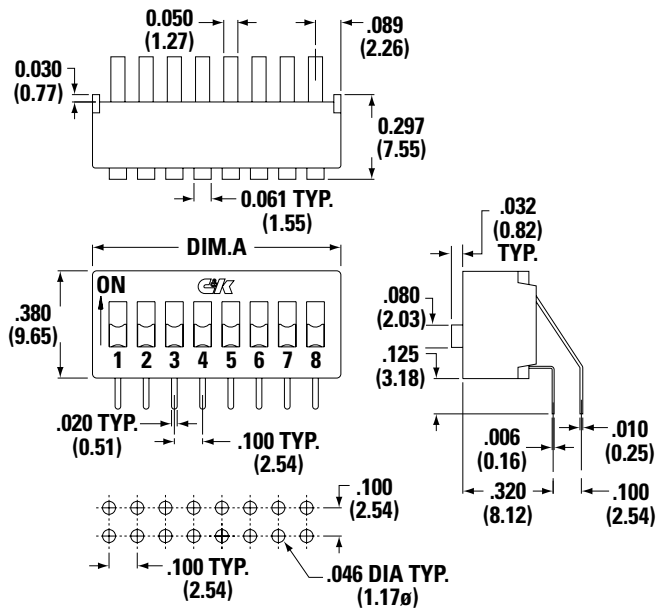
# BD Series

## Standard Profile DIP Switches



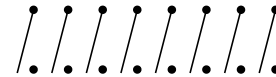
### Open Base and AV Right Angle Terminal Style

#### BD08AV



ROHS Part #	No. Pos.	DIM 'A'	Quantity per Tube
BD02AV	2	0.280 (7.11)	72
BD03AV	3	0.380 (9.65)	52
BD04AV	4	0.480 (12.19)	42
BD05AV	5	0.580 (14.73)	35
BD06AV	6	0.680 (17.27)	29
BD07AV	7	0.780 (19.81)	26
BD08AV	8	0.880 (22.35)	23
BD09AV	9	0.980 (24.89)	20
BD10AV	10	1.080 (27.43)	18
BD12AV	12	1.280 (32.51)	15

#### Schematic SPST



### Installation Soldering and Cleaning



All BD Series Standard Profile DIP Switches can be hand soldered or machine soldered without the use of boot, caps, tapes or special attention. Open base washable models have unique design, allowing solvent cleaners and water/detergent solutions to flush and clean the electrical contacts of the contaminants and fluxes. For best results, follow these directions:

- Address switch for industrial controls
- Logic switching for computers and peripherals
- Wave soldering recommended at 500° F (260°C) solder temperature.
- Hand solder using 30 watt small tip iron controlled at 500° F (260°C), 10 seconds max./terminal.
- Open base washable models: Clean flux using forced rinse, high agitation or triple bath cleaning method. DO NOT mask or cover switch in any way during cleaning. Switch is designed for easy solvent flush out.
- All switch actuators must be in 'OFF' position during soldering and cleaning processes.

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