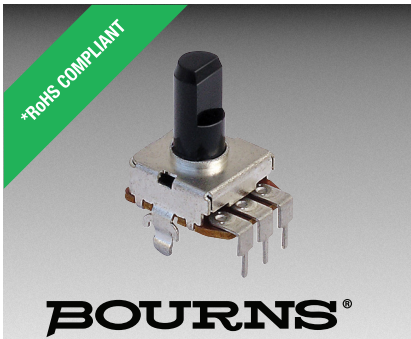




**THE DATASHEET OF
PDB12-H4301-503BF**





Features

- Single gang panel control
- RoHS compliant*
- Carbon element
- Center detent option
- Wide range of resistance tapers
- Insulated shaft styles
- Assortment of pin layouts

Additional Information

Click these links for more information:



PDB12 Series - 12 mm Rotary Potentiometer

Electrical Characteristics

Taper..... Linear, audio
 Standard Resistance Range
 1K ohms to 1M ohms
 Standard Resistance Tolerance
 $R \leq 1 \text{ K}\Omega$ $\pm 30\%$
 $1 \text{ K}\Omega < R < 1 \text{ M}\Omega$ $\pm 20\%$
 $\geq 1 \text{ M}\Omega$ $\pm 30\%$
 Residual Resistance 10 ohms max.

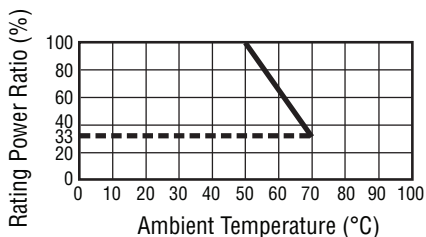
Environmental Characteristics

Power Rating
 Linear 0.08 watt
 Audio 0.04 watt
 Maximum Operating Voltage
 Linear 150 V
 Audio 100 V
 Sliding Noise 47 mV max.
 Operating Temperature.. -10 °C to +70 °C

Mechanical Characteristics

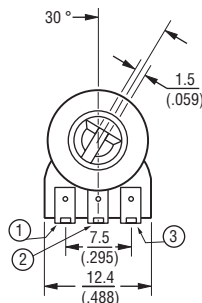
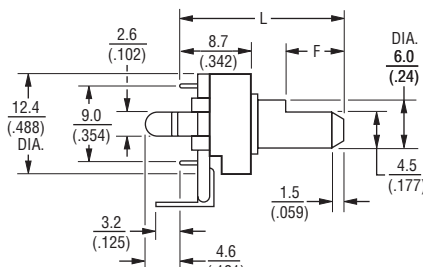
Mechanical Angle $300^\circ \pm 5^\circ$
 Rotational Torque 20 to 200 g-cm
 Stop Strength 3 kg-cm min.
 Rotational Life 15,000 cycles
 Soldering Condition
 300 °C max. within 3 seconds
 Hardware No hardware supplied

Derating Curve

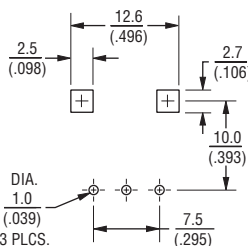


Product Dimensions

PDB12-H



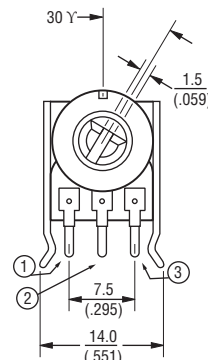
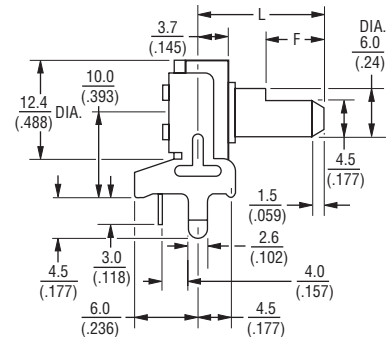
RECOMMENDED PCB LAYOUT



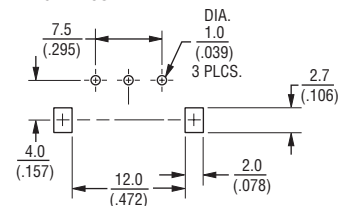
SHAFT SHOWN IN CCW POSITION

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

PDB12-G



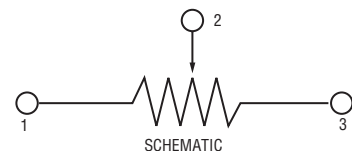
RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

PDB12 Dimensions

L	$\frac{15}{(.591)}$	$\frac{20}{(.787)}$	$\frac{25}{(.984)}$	$\frac{30}{(1.181)}$
F	$\frac{7}{(.276)}$	$\frac{7}{(.276)}$	$\frac{12}{(.472)}$	$\frac{12}{(.472)}$



CALIFORNIA WARNING Can expose you to lead, a carcinogen and reproductive toxicant.
 See www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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Applications

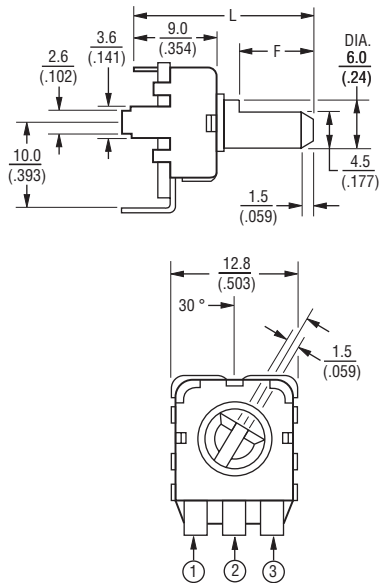
- Audio/TV sets
- Car radio
- Amplifiers/mixers/drum machines/synthesizers
- PCs/monitors
- Appliances

PDB12 Series - 12 mm Rotary Potentiometer

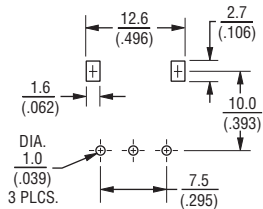
BOURNS®

Product Dimensions

PDB12-M



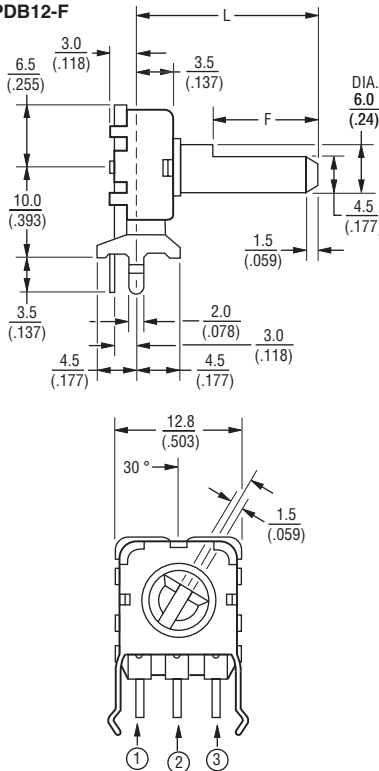
RECOMMENDED PCB LAYOUT



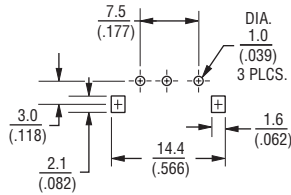
SHAFT SHOWN IN CCW POSITION

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

PDB12-F



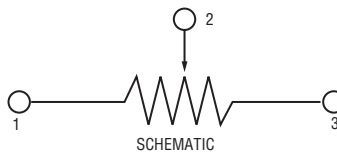
RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

PDB12 Dimensions

L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
F	7 (.276)	7 (.276)	12 (.472)	12 (.472)



How To Order

PDB12 - H 4 20 1 - 103 A F

- Model _____
- Terminal Config. _____
(see individual drawings)
- H = PC pins, rear facing
snap mount
- G = PC pins, vertical/
down facing/
snap mount
- M = PC pins, rear facing
- F = PC pins, vertical/
down facing/
snap mount
- Option _____
- 2 = Center Detent
 - 4 = No Detent
- Standard Shaft Length _____
- 15 = 15 mm
 - 20 = 20 mm
 - 25 = 25 mm
 - 30 = 30 mm
- Number of Gangs _____
- 1 = Single Gang
- Resistance Code (See Table) _____
- Resistance Taper _____
- A = Audio Taper
 - B = Linear Taper
- Shaft Style _____
- F = Flat Type Insulated Shaft
- Other styles available.

Standard Resistance Table

Resistance (Ohms)	Resistance Code
1,000	102
2,000	202
5,000	502
10,000	103
20,000	203
50,000	503
100,000	104
200,000	204
500,000	504
1,000,000	105

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