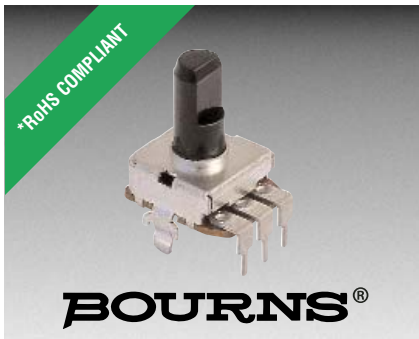




## Features

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

## Applications

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

# PDB12 Series - 12 mm Rotary Potentiometer

## Electrical Characteristics

Taper .....Linear, audio  
Standard Resistance Range  
.....1 K ohms to 1 M ohms  
Standard Resistance Tolerance ....±20 %  
Residual Resistance .....10 ohms max.

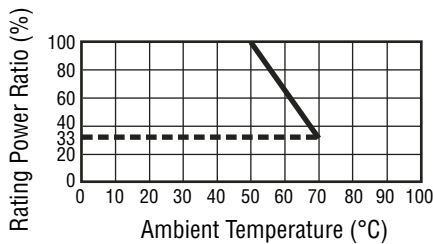
## Environmental Characteristics

Operating Temperature  
.....-10 °C to +50 °C  
Power Rating  
Linear .....0.08 watt  
Audio .....0.04 watt  
Maximum Operating Voltage  
Linear .....150 V  
Audio .....100 V  
Sliding Noise .....47 mV max.

## Mechanical Characteristics

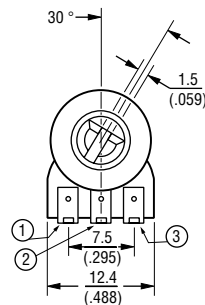
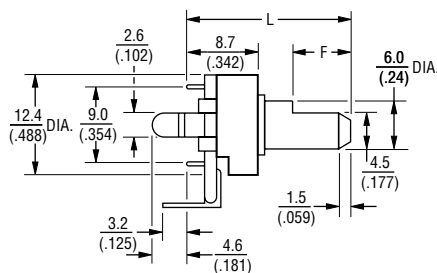
Mechanical Angle .....300 ° ±5 °  
Rotational Torque .....20 to 200 g-cm  
Stop Strength .....3 kg-cm min.  
Rotational Life .....15,000 cycles  
Soldering Condition  
.....260 °C max. within 3 seconds  
Hardware .....No hardware supplied

## Derating Curve

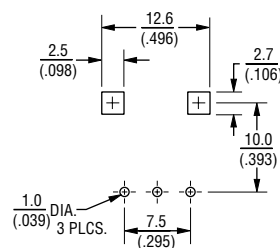


## Product Dimensions

### PDB12-H

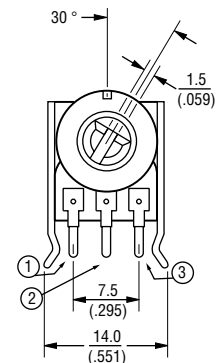
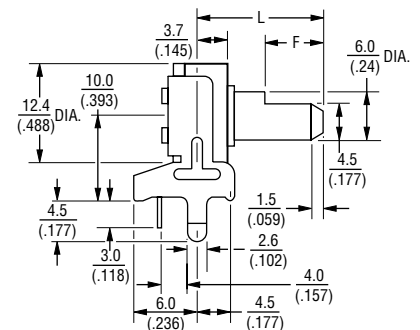


### RECOMMENDED PCB LAYOUT

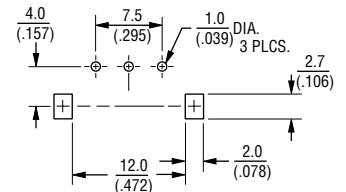


SHAFT SHOWN IN CCW POSITION

### PDB12-G



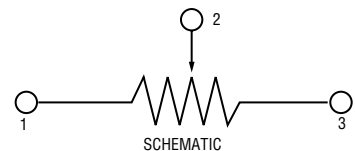
### RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

## PDB12 Dimensions

|   |              |              |              |               |
|---|--------------|--------------|--------------|---------------|
| L | 15<br>(.591) | 20<br>(.787) | 25<br>(.984) | 30<br>(1.181) |
| F | 7<br>(.275)  | 7<br>(.275)  | 12<br>(.472) | 12<br>(.472)  |



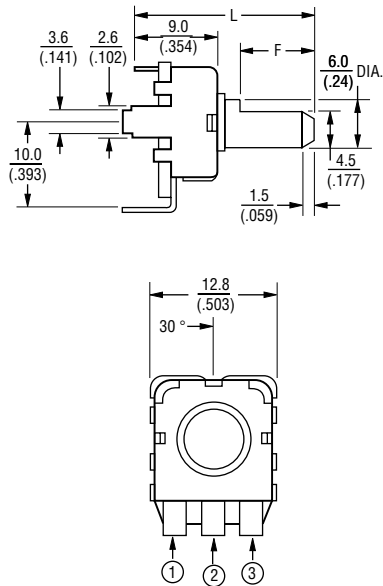
DIMENSIONS ARE:  $\frac{\text{MM}}{(\text{INCHES})}$

# PDB12 Series - 12 mm Rotary Potentiometer

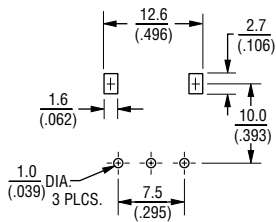
**BOURNS®**

## Product Dimensions

### PDB12-M



#### RECOMMENDED PCB LAYOUT



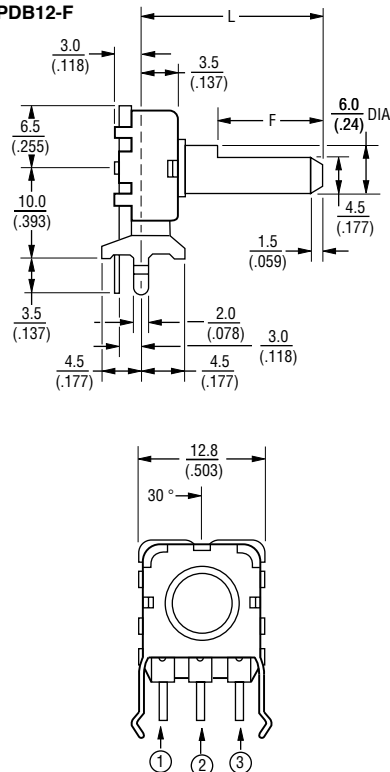
SHAFT SHOWN IN CCW POSITION

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

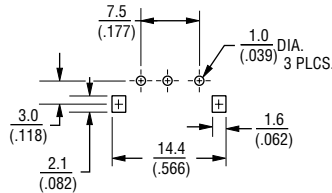
### PDB12 Dimensions

|   |              |              |              |               |
|---|--------------|--------------|--------------|---------------|
| L | 15<br>(.591) | 20<br>(.787) | 25<br>(.984) | 30<br>(1.181) |
| F | 7<br>(.275)  | 7<br>(.275)  | 12<br>(.472) | 12<br>(.472)  |

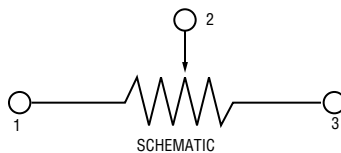
### PDB12-F



#### RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION



## 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             |