

## Features

- High rotational life
- Metal shaft styles
- Carbon element
- Center detent option
- Wide range of resistance tapers
- RoHS compliant\*



## PDB24 Series - 24 mm Rotary Potentiometer

### Electrical Characteristics

Taper.....Linear, audio  
 Standard Resistance Range .....1 K ohms to 1 M ohms  
 Standard Resistance Tolerance.....±20 %  
 Residual Resistance  
 R<500K ohms .....10 ohms max.  
 R>500K ohms .....0.1 % max.  
 total resistance

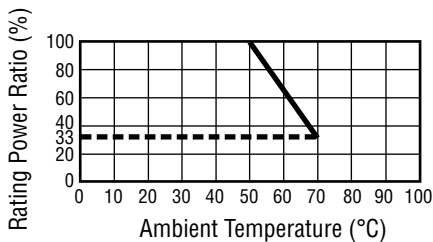
### Environmental Characteristics

Operating Temperature .....-10 °C to +70 °C  
 Power Rating  
 Linear .....0.5 watt  
 Audio .....0.25 watt  
 Maximum Operating Voltage  
 Linear .....500 V  
 Audio .....250 V  
 Rotational Noise .....150 mV max.

### Mechanical Characteristics

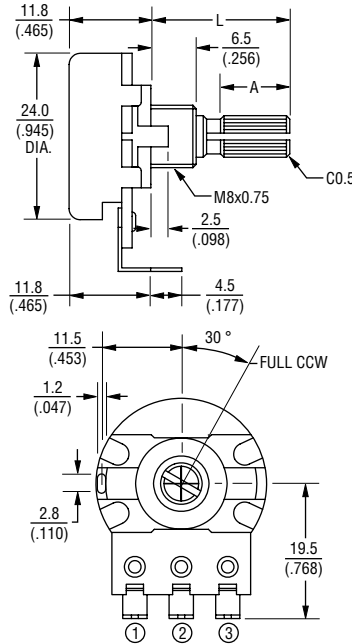
Mechanical Angle .....300 ° ±5 °  
 Rotational Torque .....20 to 200 g-cm  
 Stop Strength .....8 kg-cm min.  
 Rotational Life  
 Standard.....15,000 cycles min.  
 High.....500,000 cycles min.  
 Soldering Condition  
 Manual Soldering  
 .....300 °C within 3 seconds  
 Wave Soldering  
 .....260 °C within 3 seconds  
 Hardware.....One flat washer and  
 mounting nut supplied per  
 potentiometer with bushing

### Derating Curve

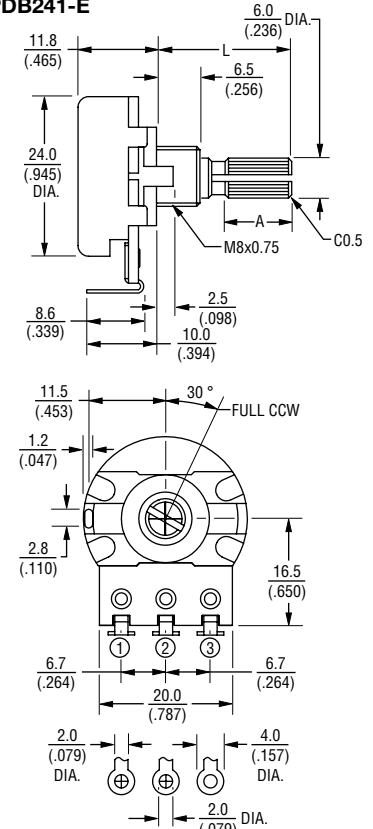


### Product Dimensions

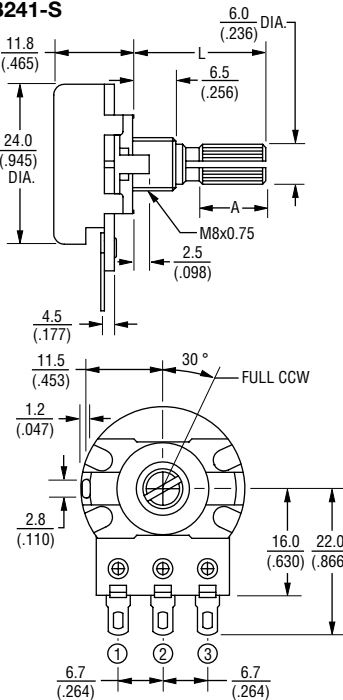
#### PDB241-D



#### PDB241-E



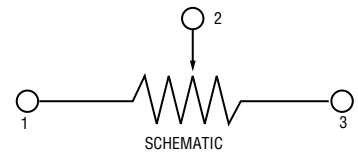
#### PDB241-S



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

TOLERANCES:

UNDER  $\frac{10.0}{(0.394)} = \pm 0.3$   
 $(\pm 0.12)$   
 $\frac{10.0 - 100}{(0.394 - 3.937)} = \pm 0.5$   
 $(\pm 0.20)$



\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

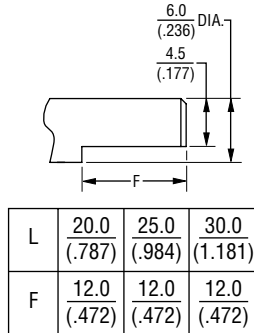
# Applications

- Various commercial applications
- Electric guitars
- Sound processing equipment
- Guitar and sound system amplifiers
- Appliances

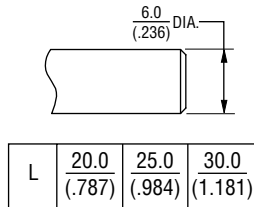
## PDB24 Series - 24 mm Rotary Potentiometer **BOURNS®**

### Product Dimensions

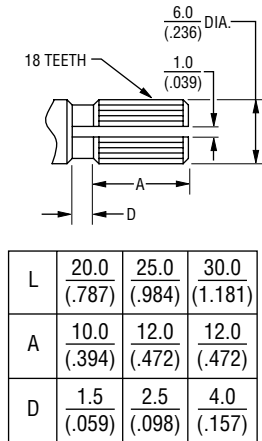
#### F Type



#### P Type



#### K Type



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

### How To Order

**PDB24 1 - E 4 25 K - 103 A2**

Model

No. of Sections

- 1 = Single Section/Standard Rotational Life
- 2 = Single Section/High Rotational Life

Terminal Configuration (Pin Layout) (see individual drawings)

- E = Solder Lugs Rear Facing
- S = Solder Lugs Down Facing
- D = PC Pins Front Facing

Detent Option

- 2 = Center Detent
- 4 = No Detents

Standard Shaft Length

- 20 = 20 mm
- 25 = 25 mm
- 30 = 30 mm

Shaft Style

- K = Metal Knurled Type Shaft
- 18 Toothed Serration Type
- F = Metal Flatted Shaft
- P = Metal Plain Shaft

Resistance Code (See Table)

Resistance Taper (See Taper Chart)

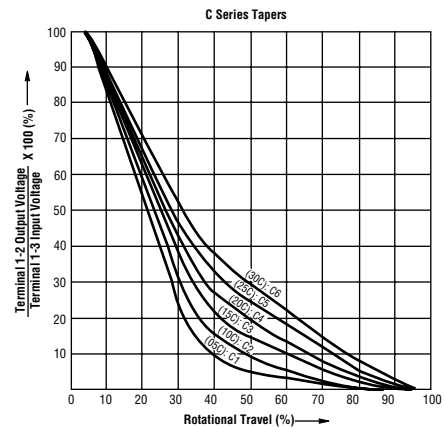
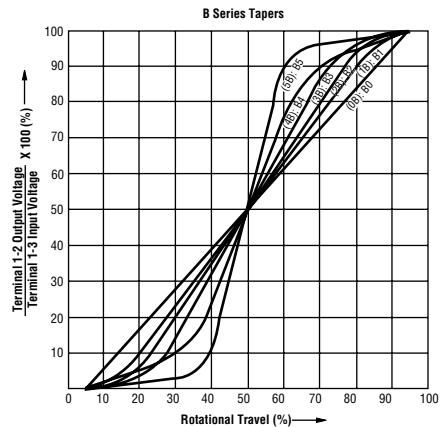
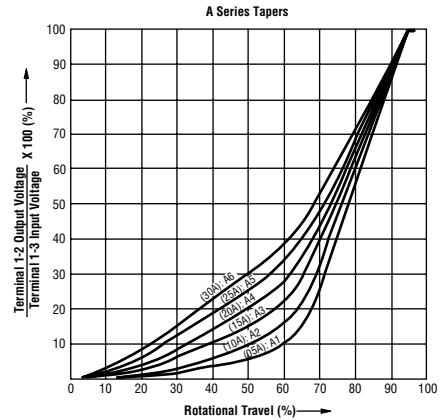
Taper Series followed by Curve Number

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             |
| 250,000           | 254             |
| 500,000           | 504             |
| 1,000,000         | 105             |

### Tapers



# Mouser Electronics

Authorized Distributor

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## Bourns:

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