

## Features

- Long life carbon element
- Plain or slotted shaft option
- Anti-rotation pin
- Metal shaft
- Audio or linear taper options
- Variety of resistance values
- RoHS compliant\*

## Applications

- Medical diagnostic equipment\*\*
- Test and measurement equipment
- Avionics controls
- Communications equipment
- Medical laboratory equipment\*\*

# PDF24 - 24 mm Long Life Potentiometer

### Electrical Characteristics

Taper.....Audio, linear  
 Standard Resistance .....1K to 1M ohms  
 Standard Resistance Tolerance.....±10 %  
 Linearity.....±3 %

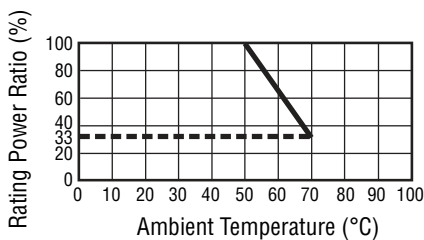
### Environmental Characteristics

Operating Temperature...-10 °C to +85 °C  
 Power Rating  
 Linear Taper ..... 0.5 watt  
 Audio Taper ..... 0.25 watt  
 Maximum Operating Voltage  
 Linear and Audio Taper ..... 200 VDC  
 Sliding Noise  
 Linear ..... 100 mV max.  
 Other Tapers ..... 200 mV max.  
 IP Rating\*\* .....IP40  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM)..... N/A  
 \*\*Please consult factory for other options.

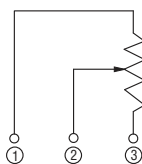
### Mechanical Characteristics

Mechanical Angle ..... 300 ° ±10 °  
 Rotational Torque ..... 5 to 70 g-cm  
 Stop Strength..... 9 kg-cm min.  
 Rotational Life  
 ..... 1,000,000 shaft revolutions  
 Soldering Condition  
 Manual Soldering  
 ..... 350 °C ± 10 °C for 3.5 ± 0.5 sec.  
 Hardware ..... One flat washer and  
 mounting nut supplied per  
 potentiometer with bushing

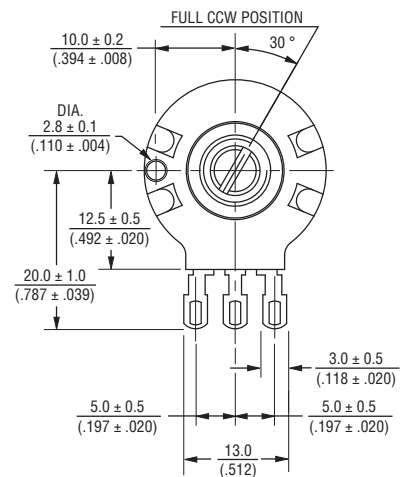
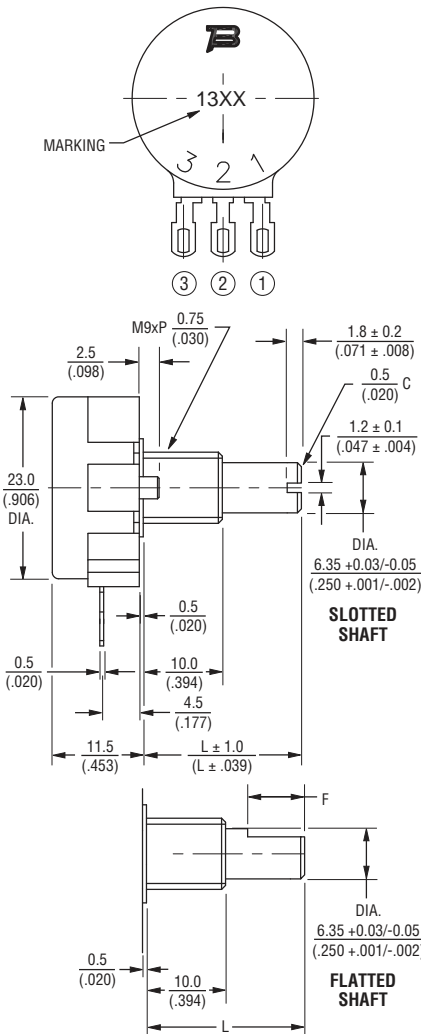
### Derating Curve



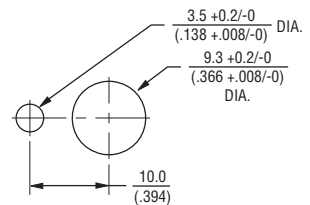
### Circuit



### Product Dimensions

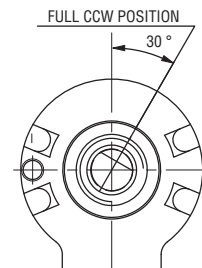


### Recommended Pad Layout

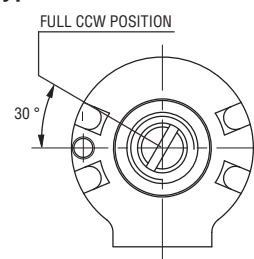


### Shaft Types

#### F-Type



#### S-Type



### S-Type

L	20 (.787)	25 (.984)	30 (1.181)	35 (1.378)	40 (1.575)
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### F-Type

L	20 (.787)	25 (.984)	30 (1.181)	35 (1.378)
F	7 (.276)	7 (.276)	12 (.472)	12 (.472)

DIMENSIONS: MM (INCHES)



**WARNING Cancer and Reproductive Harm**

[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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

\*\* Excluding FDA Class III devices and generally equivalent classification outside of the United States.

Specifications are subject to change without notice. Users should verify actual device performance in their specific applications.

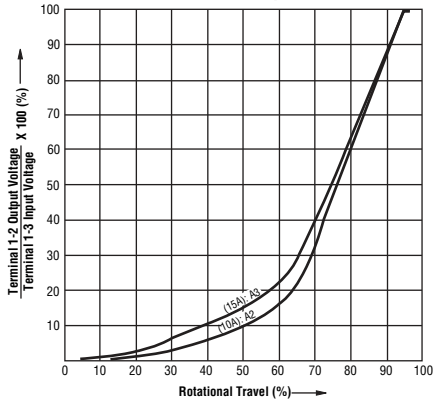
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# PDF24 - 24 mm Long Life Potentiometer

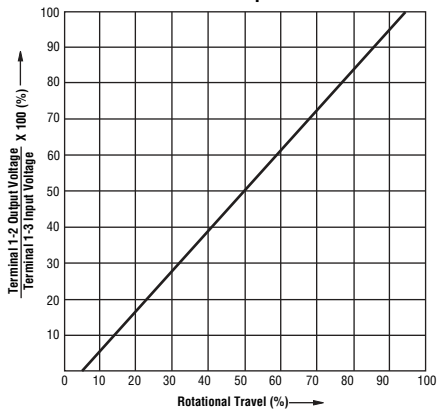
**BOURNS®**

## Tapers

### A Series Tapers



### B0 Taper



## 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

## How To Order

**PDF24 1 - S 4 20 F - 103 B0**

Model \_\_\_\_\_  
 Number of Units \_\_\_\_\_  
 1 = Single  
 Orientation \_\_\_\_\_  
 S = Solder Lugs  
 Down Facing  
 Detents \_\_\_\_\_  
 4 = No Detents  
 Shaft Length (FMS) \_\_\_\_\_  
 20 = 20 mm  
 25 = 25 mm  
 30 = 30 mm  
 35 = 35 mm  
 40 = 40 mm\*  
 Shaft Type \_\_\_\_\_  
 F = Flatted Shaft  
 S = Slotted Shaft  
 Resistance Code (See Table) \_\_\_\_\_  
 Resistance Taper (See Taper Charts) \_\_\_\_\_

\* Available in slotted shaft style only.

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