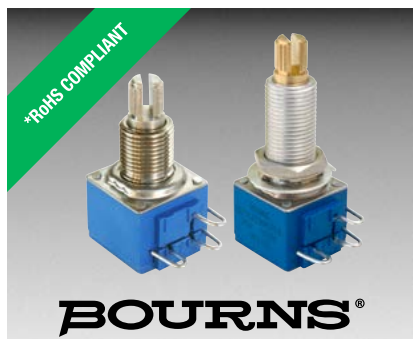




## Features

- Plain or knurled shaft option
- 10 % TR tolerance
- Conductive polymer element
- Very low noise
- Single-turn
- 250K and 500K resistances



## Model 82 Vintage Premium Guitar Potentiometer

### Initial Electrical Characteristics<sup>1</sup>

|                                                                                   |                       |
|-----------------------------------------------------------------------------------|-----------------------|
| Standard Resistance Value                                                         | 250K and 500K ohms    |
| Total Resistance Tolerance                                                        | 10 %                  |
| Independent Linearity                                                             | ±5 %                  |
| Absolute Minimum Resistance                                                       | 2 ohms maximum        |
| Effective Electrical Angle                                                        | 225 ° ± 5 °           |
| Contact Resistance Variation                                                      | ±1 %                  |
| Dielectric Withstanding Voltage (MIL-STD-202, Method 301)                         |                       |
| Sea Level                                                                         | 1,500 VAC minimum     |
| 70,000 Feet                                                                       | 500 VAC minimum       |
| Insulation Resistance (500 VDC)                                                   | 1,000 megohms minimum |
| Power Rating (Voltage Limited By Power Dissipation or 350 VAC, Whichever Is Less) |                       |
| +70 °C                                                                            | 0.25 watt             |
| +125 °C                                                                           | 0 watt                |
| Theoretical Resolution                                                            | Essentially infinite  |

### Environmental Characteristics<sup>1</sup>

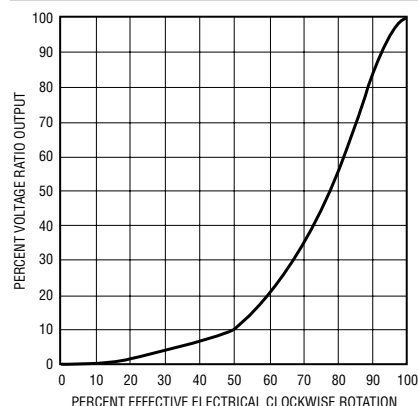
|                                                            |                     |
|------------------------------------------------------------|---------------------|
| Operating Temperature Range                                | -40 °C to +125 °C   |
| Storage Temperature Range                                  | -55 °C to +125 °C   |
| Temperature Coefficient Over Storage Temperature Range     | ±1,000 ppm/°C       |
| Vibration                                                  | 15 G                |
| Total Resistance Shift                                     | ±2 % maximum        |
| Voltage Ratio Shift                                        | ±5 % maximum        |
| Shock                                                      | 30 G                |
| Total Resistance Shift                                     | ±2 % maximum        |
| Voltage Ratio Shift                                        | ±5 % maximum        |
| Load Life                                                  | 1,000 hours         |
| Total Resistance Shift                                     | ±10 % maximum       |
| Rotational Life (No Load)                                  | 100,000 cycles      |
| Total Resistance Shift                                     | ±20 % maximum       |
| Contact Resistance Variation @ 50,000 cycles               | ±3 %                |
| Moisture Resistance (MIL-STD-202, Method 103, Condition B) |                     |
| Total Resistance Shift                                     | ±20 % TRS maximum   |
| Insulation Resistance (500 VDC)                            | 100 megohms minimum |
| IP Rating                                                  | IP 40               |

### Mechanical Characteristics<sup>1</sup>

|                     |                                                                                                                                                                                     |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mechanical Angle    | 300 ° ± 5 °                                                                                                                                                                         |
| Rotational Torque   | 0.7 oz-in (50 g-cm) typical                                                                                                                                                         |
| Weight              | 21 grams                                                                                                                                                                            |
| Terminals           | J-hooks                                                                                                                                                                             |
| Soldering Condition | Recommended hand soldering using Sn95/Ag5 no clean solder, 0.025 " wire diameter. Maximum temperature 399 °C (750 °F) for 3 seconds. No wash process to be used with no clean flux. |
| Marking             | Manufacturer's trademark, date code, resistance, manufacturer's part number.                                                                                                        |
| Hardware            | One lockwasher (H-37-2), one flat washer (35200-0793), two mounting nuts (H-38-2) and one solder lug washer (H-127) are shipped with each potentiometer                             |

<sup>1</sup> ELECTRICAL SPECIFICATIONS TESTED AT 250 RPM, AT ROOM AMBIENT: +25 °C NOMINAL.

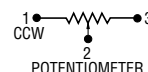
### Audio Taper Plot



### Selection Guide

| Part Number        | Taper/Shaft                  | Resistance Value (Ω) |
|--------------------|------------------------------|----------------------|
| 82A1D-A24-BA0/186L | Audio/Plain                  | 500K                 |
| 82A1D-A24-BA0/187L | Audio/Plain                  | 250K                 |
| 82A1D-Z28-BA0/254L | Audio/Knurled                | 500K                 |
| 82A1D-Z28-BA0/255L | Audio/Knurled                | 250K                 |
| 82Z1D-Z33-BA0/753L | Audio/Knurled (Long Bushing) | 250K                 |
| 82Z1D-Z33-BA0/754L | Audio/Knurled (Long Bushing) | 500K                 |

### Schematic



**WARNING**  
Cancer and Reproductive Harm  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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

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## Additional Features

- Standard audio taper
- Long rotational life
- RoHS compliant\*

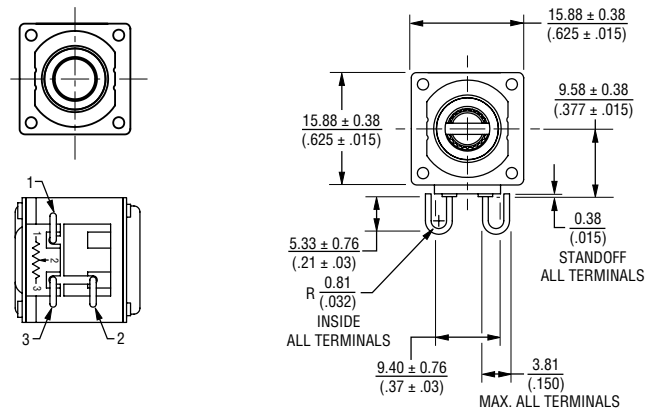
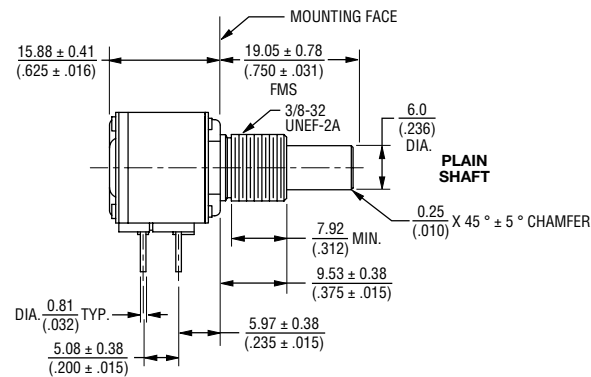
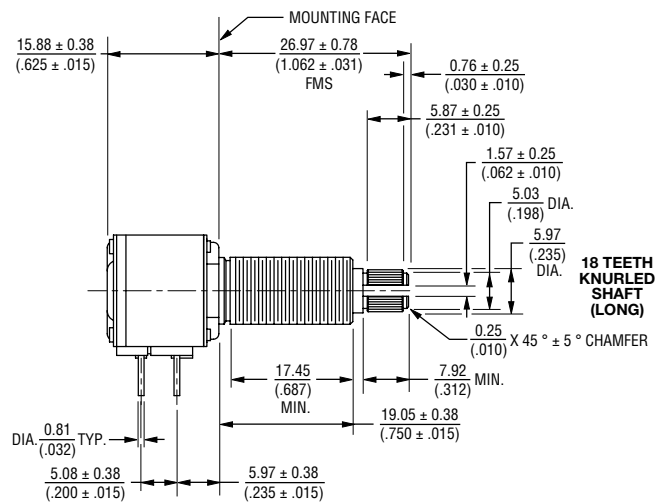
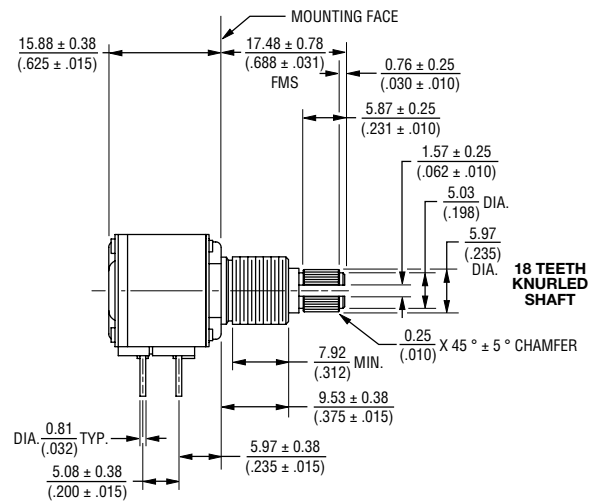
## Applications

- Electric guitars
- Bass guitars

# Model 82 Vintage Premium Guitar Potentiometer

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## Product Dimensions



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

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