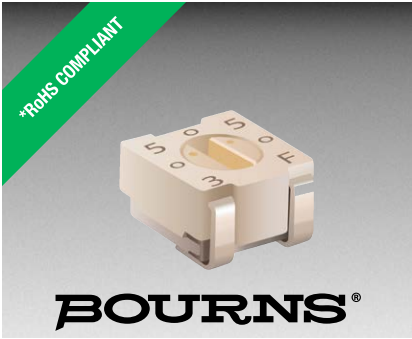




**THE DATASHEET OF**  
**3313X-1-204E**





### Features

- Surface Mount 3 mm Square Single-Turn Cermet / Sealed
- Compatible with surface mount manufacturing processes (not recommended for wave soldering)
- Rotor stop for "in-circuit" adjustment
- 100 cycle rotational and seal life
- Plastic housing for RF applications
- Reverse pin layout option (Model 3313X)
- RoHS compliant\*
- Halogen free models available
- AEC-Q200 Qualified Grade 1

## 3313 – 3 mm Trimpot® Trimming Potentiometer

### Additional Information

Click these links for more information:

[PRODUCT SELECTOR](#)
[TECHNICAL LIBRARY](#)
[INVENTORY](#)
[SAMPLES](#)
[CONTACT](#)

### Electrical Characteristics

Standard Resistance Range ..... 10 ohms to 2 megohms (see standard resistance table)

Resistance Tolerance ..... ±20 % std.

End Resistance ..... 1 % or 3 ohms max. (whichever is greater)

Contact Resistance Variation ..... 3 % or 3 ohms

Adjustability

Voltage Divider ..... ±0.1 %

Rheostat ..... ±0.2 %

Resolution ..... Infinite

Insulation Resistance ..... 500 VDC 100 megohms min.

Dielectric Strength

Sea Level ..... 500 VAC

70,000 Feet ..... 350 VAC

Adjustment Angle ..... 220° nom.

### Environmental Characteristics

Max. Soldering Exposure ..... 250 °C/10 seconds

Power Rating (200 volts max.)

70 °C ..... 0.125 watt

125 °C ..... 0 watt

Operating Temp. Range ..... -55 °C to +125 °C

Temperature Coefficient

..... ≤100 ohms ±150 PPM/°C;

..... >100 ohms ±100 PPM/°C

Seal Test ..... 85 °C Fluorinert<sup>†</sup>/60 seconds

Humidity ..... MIL-STD 202, Method 106 (no vibration) TRS ±3 %; IR 10 megohms

Vibration ..... 20 G TRS ±1 %; VRS ±1 %

Shock ..... 100 G TRS ±1 %; VRS ±1 %

Load Life ..... 1000 hours @ 70 °C Rated Power; TRS ±3 %

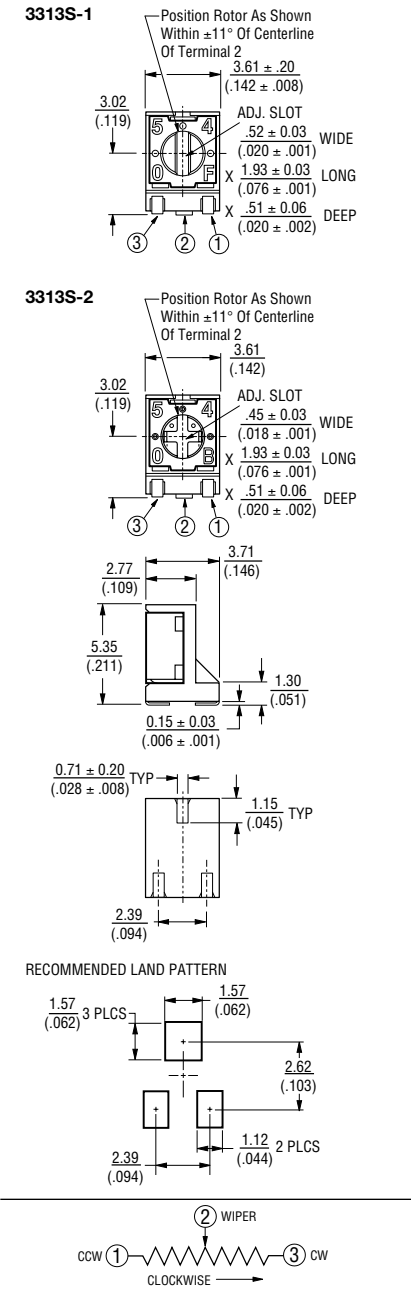
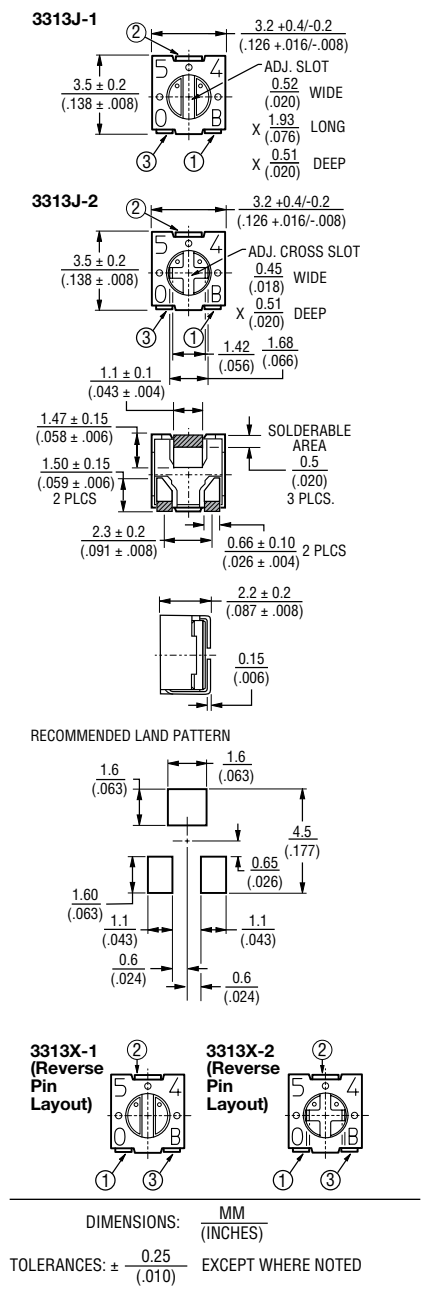
Rotational Life ..... 100 cycles TRS ±3 %

Thermal Shock ..... 5 cycles TRS ±2 %; VRS ±1 %

Storage Condition

..... 40 °C max. / 70 % R.H. max.

### Product Dimensions



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

\*\* Halogen free product is identified by a black housing color. Bourns follows the prevailing definition of "halogen free" in the industry. Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

<sup>†</sup>Fluorinert™ is a registered trademark of 3M Co. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).



## Features (Continued)

- See [processing information](#) on RoHS compliant surface mount trimmers
- For trimmer applications/processing guidelines, [click here](#)

# 3313 – 3 mm Trimpot® Trimming Potentiometer

# BOURNS®

### Physical Characteristics

Mechanical Angle ..... 250 ° nom.  
 Torque..... 50 g-cm max.  
 Stop Strength..... 200 g-cm min.  
 Pushover Strength (“S” Style only)  
 ..... 1.6 Kilograms (3.5 lbs) minimum  
 Flammability ..... U.L. 94V-0  
 Weight ..... Approx. 0.01 oz.  
 Marking ..... Resistance code  
 and date code  
 Wiper ..... 50 % (Actual TR) ±10 %  
 Standard Packaging  
 J, X Styles (MSL-1) ..... 1000 pcs./7” reel  
 S Style (MSL-1) ..... 200 pcs./7” reel  
 Adjustment Tool ..... H-91

### Standard Resistance Table

Resistance (Ohms)	Part Marking Code	Resistance Code
10	A1	100
20	21	200
50	51	500
<b>100</b>	<b>A2</b>	<b>101</b>
<b>200</b>	<b>22</b>	<b>201</b>
<b>500</b>	<b>52</b>	<b>501</b>
<b>1,000</b>	<b>A3</b>	<b>102</b>
<b>2,000</b>	<b>23</b>	<b>202</b>
<b>5,000</b>	<b>53</b>	<b>502</b>
<b>10,000</b>	<b>A4</b>	<b>103</b>
<b>20,000</b>	<b>24</b>	<b>203</b>
<b>50,000</b>	<b>54</b>	<b>503</b>
<b>100,000</b>	<b>A5</b>	<b>104</b>
200,000	25	204
500,000	55	504
1,000,000	A6	105
2,000,000	26	205

Popular distribution resistance values listed in boldface. Special resistances available.

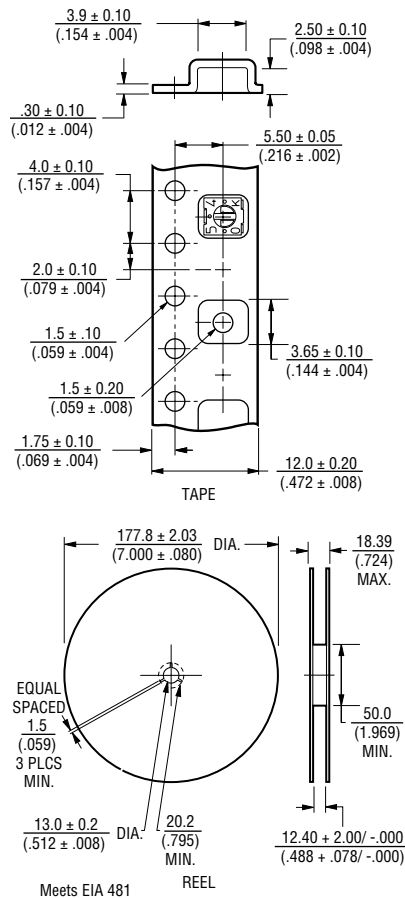
### How To Order

**3313 J - 1 - 502 E**

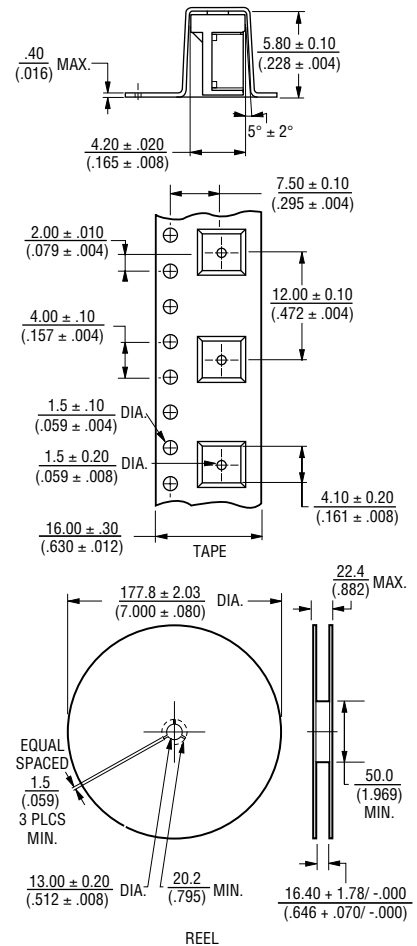
Model \_\_\_\_\_  
 Style \_\_\_\_\_  
 Standard or Modified  
 Product Indicator \_\_\_\_\_  
 -1 = Standard Single Slot  
 -2 = Standard Cross Slot  
 -GK2 = Halogen Free Single Slot  
 (Black Housing Color)  
 -GL5 = Halogen Free Cross Slot  
 (Black Housing Color)  
 Resistance Code \_\_\_\_\_  
 Embossed Tape \_\_\_\_\_  
 1000 pcs. / 7” Reel (J, X Styles - MSL-1)  
 200 pcs. / 7” Reel (S Style - MSL-1)

Tape and reel material meets Antistatic ANSI/ESD 5541-2003 packaging standards.

### 3313J, X Packaging Specifications



### 3313S Packaging Specifications



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$   
 TOLERANCES: ±  $\frac{0.25}{(0.010)}$  EXCEPT WHERE NOTED

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REV. 02/24

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- [Bourns Inc. Information](#)

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- ✓ Shortage Management
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