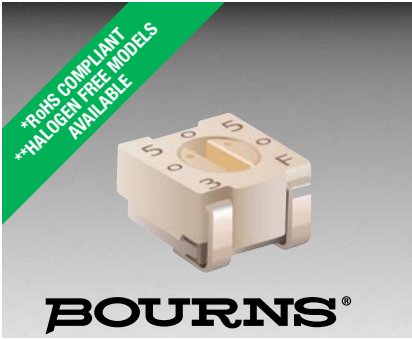




**THE DATASHEET OF**  
**3313J-1-504E**





## 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

### 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™/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 %

### 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 %

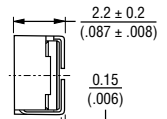
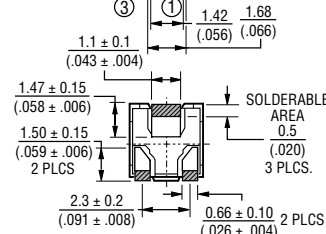
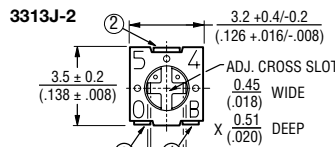
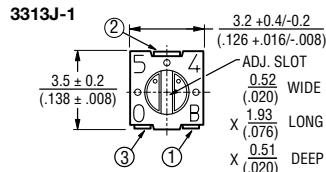
Standard Packaging

  J, X Styles (MSL-1) ..... 1000 pcs./7 " reel

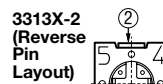
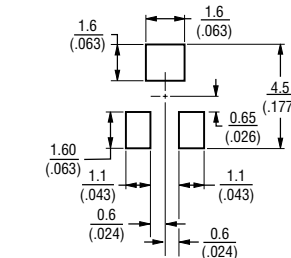
  S Style (MSL-1) ..... 200 pcs./7 " reel

Adjustment Tool ..... H-91

### Product Dimensions



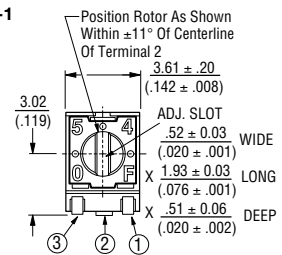
#### RECOMMENDED LAND PATTERN



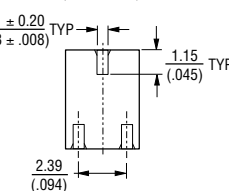
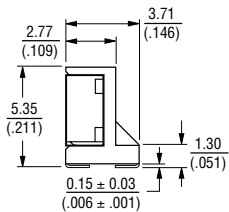
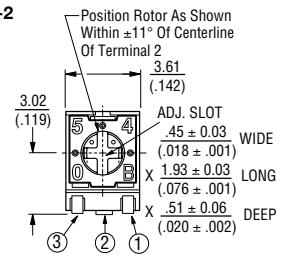
DIMENSIONS: MM (INCHES)

TOLERANCES: ± 0.25 (0.010) EXCEPT WHERE NOTED

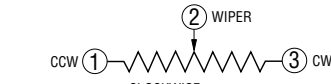
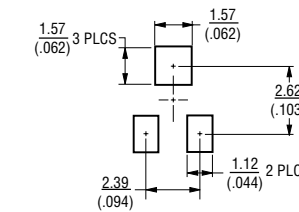
### 3313S-1



### 3313S-2



#### RECOMMENDED LAND PATTERN

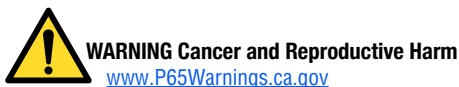


\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

\*\* 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.

† "Fluorinert" is a registered trademark of 3M Co.

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## 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®

### 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.

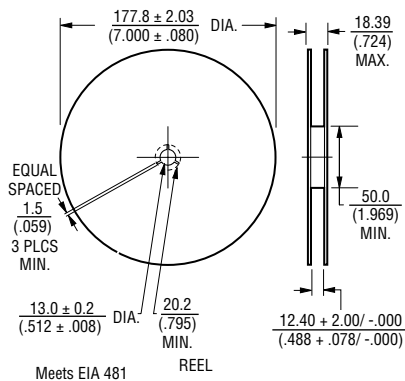
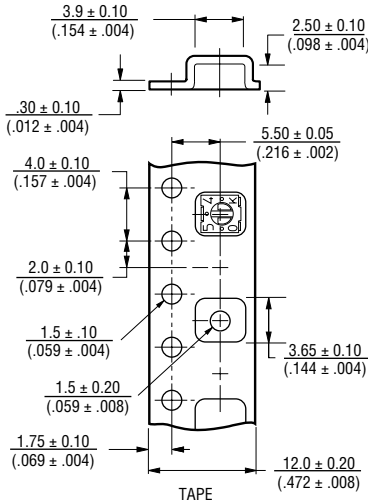
### How To Order

**3313 J - 1 - 502 E**

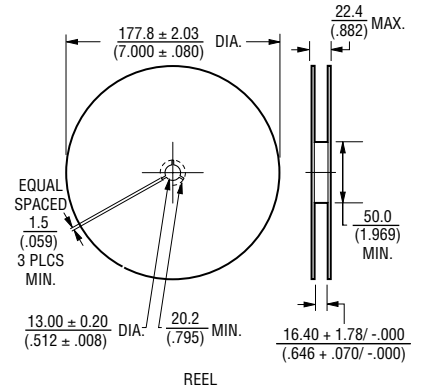
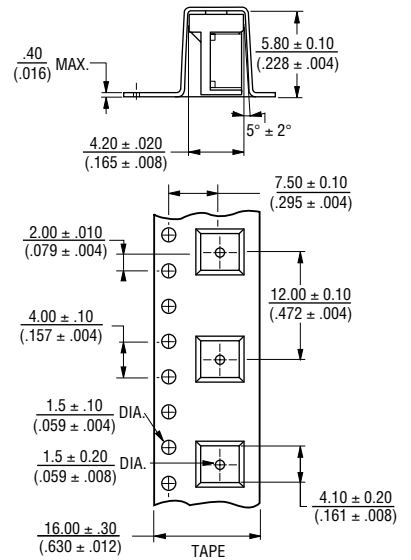
Model \_\_\_\_\_  
 Style \_\_\_\_\_  
 Standard or Modified Product Indicator \_\_\_\_\_  
 -1 = Standard Single Slot  
 -2 = Standard Cross Slot  
 -GK2 = Halogen Free Single Slot (Black Housing Color)  
 -GL5 = Halogen Free Cross Slot (Black Housing Color)  
 Resistance Code \_\_\_\_\_  
 Embossed 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:  $\pm \frac{0.25}{(.010)}$  EXCEPT WHERE NOTED

REV. 07/19

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