

## 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\* - see [processing information](#) on RoHS compliant surface mount trimmers
- For trimmer applications/processing guidelines, [click here](#)
- Halogen free models available\*\*

## 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.

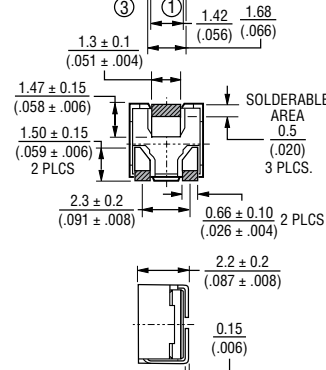
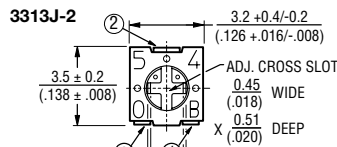
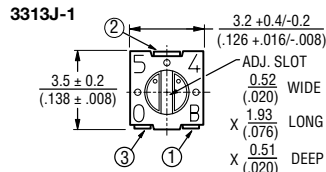
### Environmental Characteristics

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 <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 %

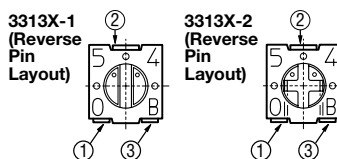
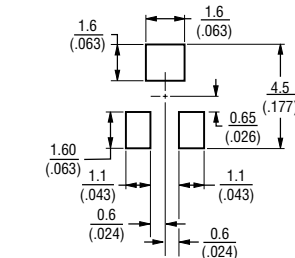
### Physical Characteristics

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



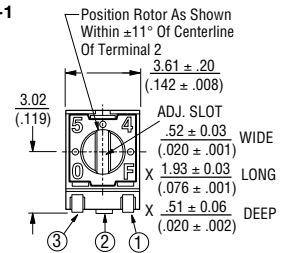
#### RECOMMENDED LAND PATTERN



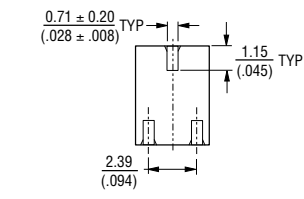
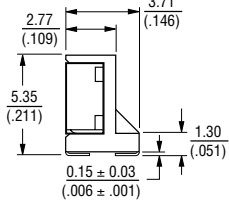
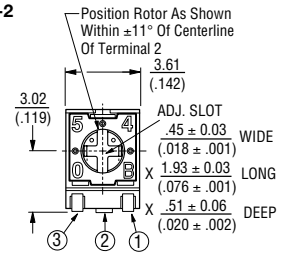
DIMENSIONS: MM (INCHES)

TOLERANCES: ± 0.25 (.010) EXCEPT WHERE NOTED

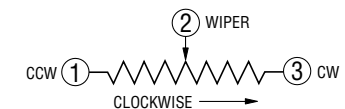
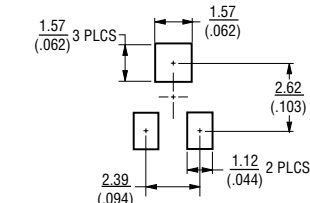
### 3313S-1



### 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.

Specifications are subject to change without notice.

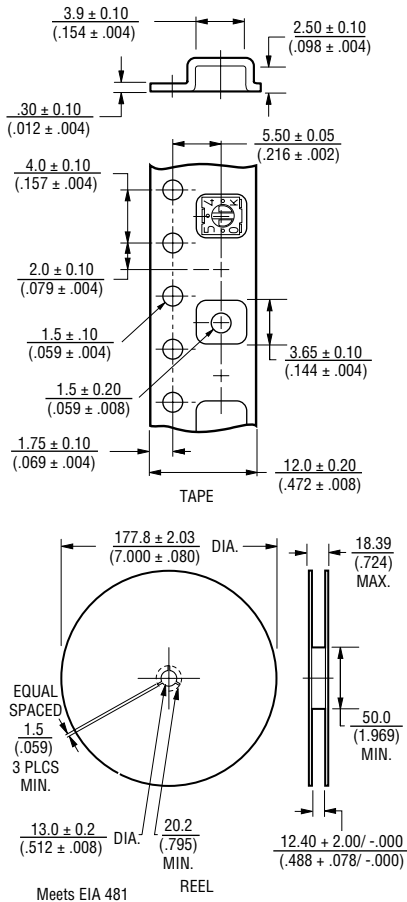
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

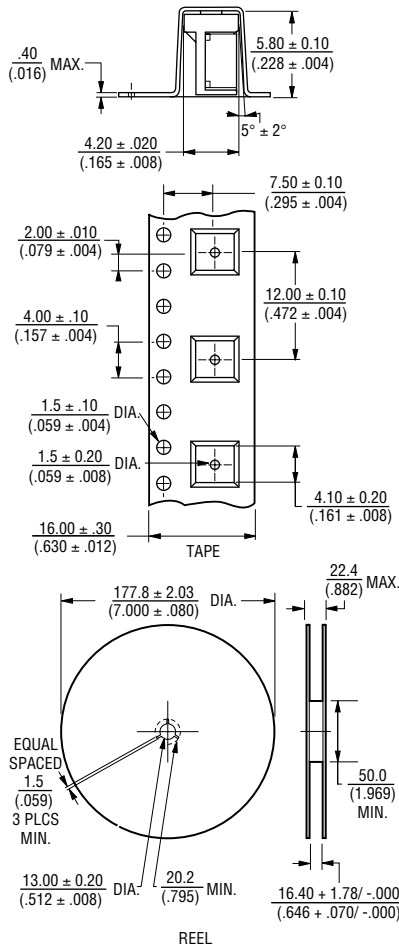
# 3313 - 3 mm Trimpot® Trimming Potentiometer

# BOURNS®

## 3313J, X Packaging Specifications



## 3313S Packaging Specifications



## 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

Model 3313 J - 1 - 502 E

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.

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

TOLERANCES:  $\pm \frac{0.25}{(.010)}$  EXCEPT WHERE NOTED

REV. 05/16

"Trimpot" is a registered trademark of Bourns, Inc. 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.

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## Bourns:

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