



**THE DATASHEET OF**  
**3314G-1-504E**





## Features

- Surface Mount / Single Turn / Cermet Industrial / Sealed
- Compatible with surface mount manufacturing processes
- Compatible with popular vacuum pick-and-place equipment
- J-hook, gull-wing & pinned configurations

- Side adjust available
- Meets EIA/EIAJ/IPC/VECI SMD standard trimmer designs
- RoHS compliant\* - see [processing information](#) on lead free surface mount trimmers
- For trimmer applications/processing guidelines, [click here](#)
- AEC-Q200 Qualified Grade 1

# 3314 – 4 mm Square Trimpot® Trimming Potentiometer

## Additional Information

Click these links for more information:



## Electrical Characteristics

- Standard Resistance Range ..... 10 ohms to 2 megohms  
(see standard resistance table)
- Resistance Tolerance ..... ±20 % std.  
(tighter tolerance available)
- End Resistance ..... 1 % or 2 ohms max.  
(whichever is greater)
- Contact Resistance Variation ..... 3 % or 3 ohms
- Resolution ..... Infinite
- Insulation Resistance ..... 500 vdc.  
100 megohms min.
- Dielectric Strength  
Sea Level ..... 500 vac (1 minute)
- Adjustment Angle ..... 210 ° nom.

## Environmental Characteristics

- Power Rating (300 volts max. for Style G, J & H; 50 volts max. for Style R)  
70 °C ..... 0.25 watt  
125 °C ..... 0 watt
- Temperature Range ..... -55 °C to +125 °C
- Temperature Coefficient ..... ±100 ppm/°C
- Seal Test ..... 85 °C Fluorinert<sup>†</sup>/60 seconds
- Humidity ..... 90-98 % RH,  
10 cycles, 240 hours  
TRS ±2 %; IR 10 megohms
- Vibration ..... 20 G TRS ±1 %; VRS ±1 %
- Shock ..... 100 G TRS ±1 %; VRS ±1 %
- Load Life  
... (@ 70 °C Rated Power 1000 Hours)  
TRS ±3 %
- Rotational Life ..... 100 cycles  
TRS ±3 %
- Thermal Shock ..... 5 cycles  
TRS ±2 %; VRS ±1 %

## Product Dimensions

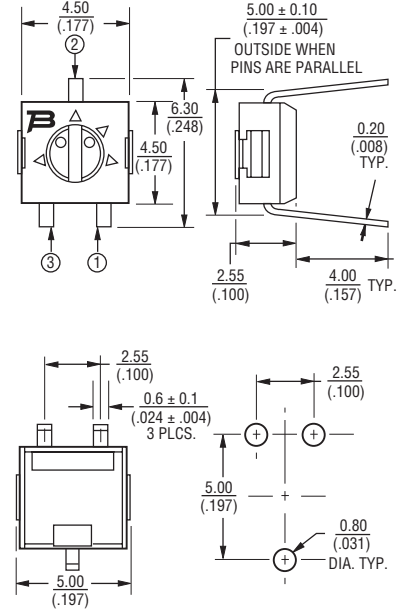
3314J-1



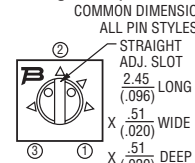
3314G-1



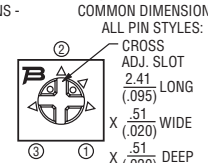
3314H-1



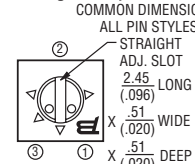
3314J-1, G-1, R-1, H-1 (Bourns Marking, Straight Slot)



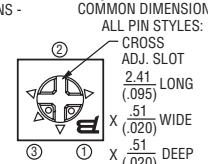
3314J-2, G-2, R-2, H-2 (Bourns Marking, Cross Slot)



3314J-3, G-3, R-3, H-3 (Reverse Marking, Straight Slot)



3314J-4, G-4, R-4, H-4 (Reverse Marking, Cross Slot)



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

TOLERANCES: ±  $\frac{0.30}{(.012)}$  EXCEPT WHERE NOTED



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

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

"Trimpot" is a trademark of Bourns, Inc. †"Fluorinert" is a registered trademark of 3M Co.

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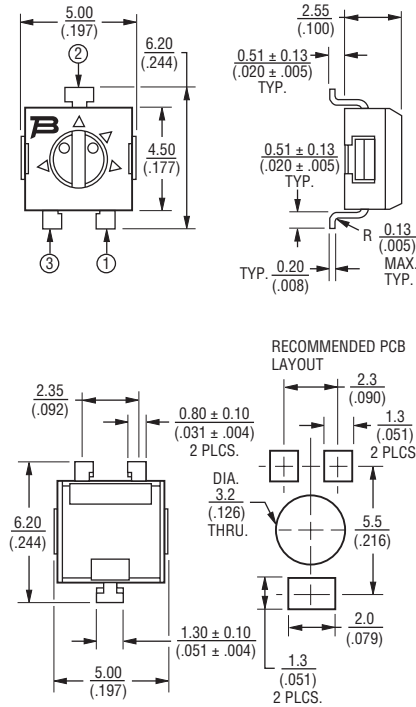


## Physical Characteristics

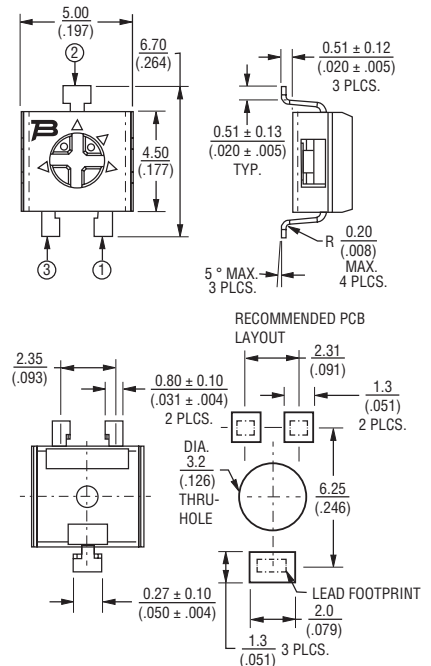
Mechanical Angle ..... 240 ° nom.  
 Torque..... 180 g-cm max.  
 Stop Strength..... 300 g-cm min.  
 Pushover Strength (S & Z Style)  
 .....1.6 kilograms (3.5 lbs.) min.  
 Weight ..... Approximately 0.01 oz.  
 Marking..... Manufacturer's code,  
 resistance code and date code  
 Wiper ..... 50 % (Actual TR) ±10 %  
 Flammability ..... U.L. 94V-0  
 Standard Packaging  
 J, G and R.... 500 pcs./7 " reel (MSL-1)  
 S and Z..... 200 pcs./7 " reel (MSL-1)  
 H..... 100 pcs./tube  
 Adjustment Tool ..... H-90  
 Storage Condition  
 ..... 40 °C max. / 70 % R.H. max.

## Product Dimensions

3314R-1



3314R-GM5



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# 3314 – 4 mm Square Trimpot® Trimming Potentiometer

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## Product Dimensions

**3314S-1  
(Bourns Marking, Straight Slot)**



**3314S-2  
(Bourns Marking, Cross Slot)**



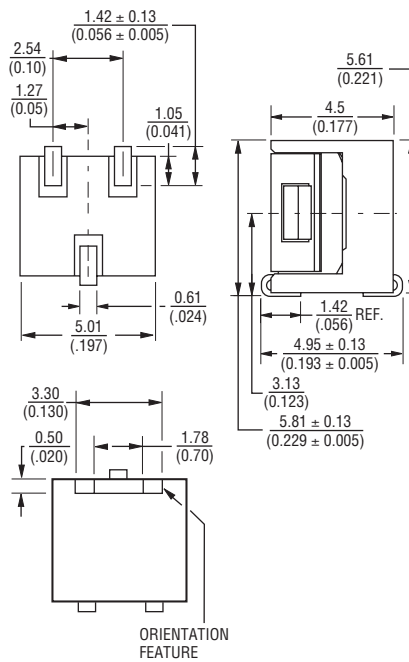
**3314S-3  
(Reverse Marking, Straight Slot)**



**3314S-4  
(Reverse Marking, Cross Slot)**



**3314S  
Common Dimensions**



RECOMMENDED PCB LAYOUT



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

TOLERANCES: ±  $\frac{0.30}{(.012)}$  EXCEPT WHERE NOTED

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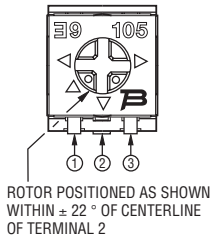
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# 3314 – 4 mm Square Trimpot® Trimming Potentiometer

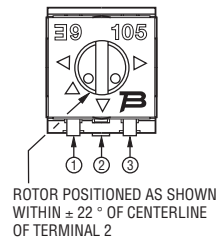
# BOURNS®

## Product Dimensions

**3314Z-1-(RC) E**  
(Cross Slot)



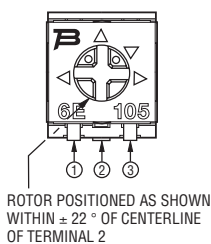
**3314Z-GA4-(RC) E**  
(Straight Slot)



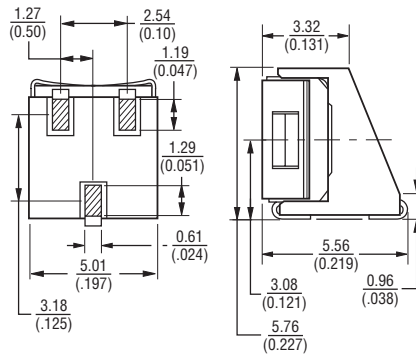
**3314Z-3**  
(Reverse Marking, Straight Slot)



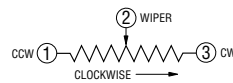
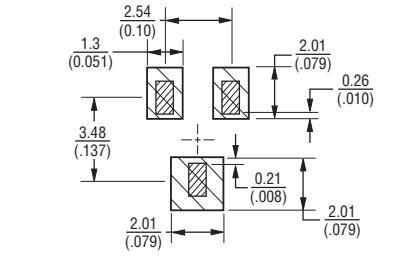
**3314Z-4-(RC) E**  
(Reverse Marking, Cross Slot)



**3314Z**  
Common Dimensions



RECOMMENDED PCB LAYOUT



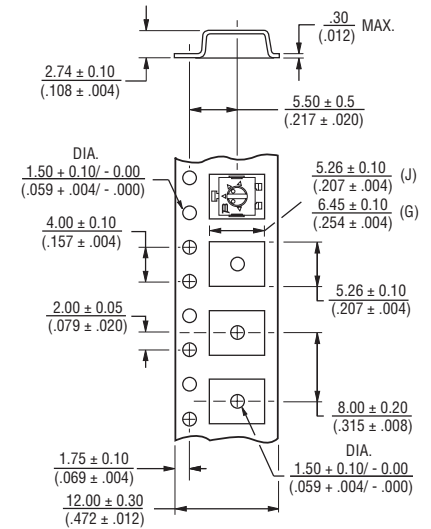
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

TOLERANCES: ±  $\frac{0.30}{(0.12)}$  EXCEPT WHERE NOTED

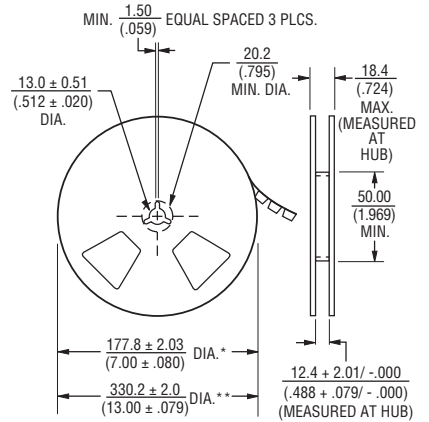
## Packaging Specifications

(J, G Styles)

TAPE



REEL



\* Embossed Tape Designator "E"  
 \*\* Embossed Tape Designator "G"  
 (See How To Order chart for further information.)

Meets EIA specification 481.

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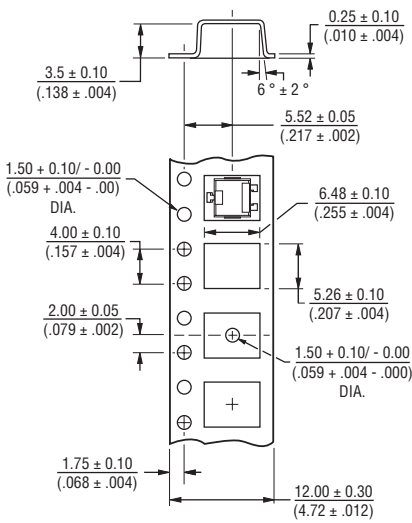
# 3314 – 4 mm Square Trimpot® Trimming Potentiometer

# BOURNS®

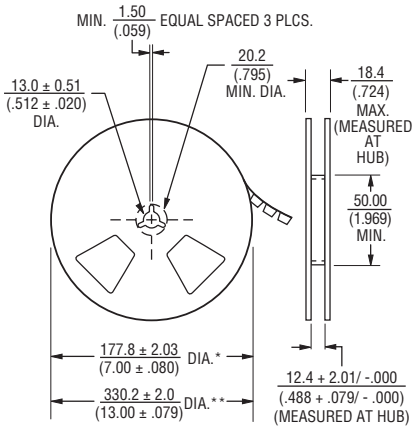
## Packaging Specifications

### (R Style)

TAPE



REEL

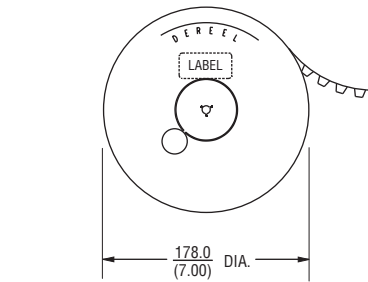


\* Embossed Tape Designator "E"  
 \*\* Embossed Tape Designator "G"  
 (See How To Order chart for further information.)

Meets EIA specification 481.

### (R-GM5 Style)

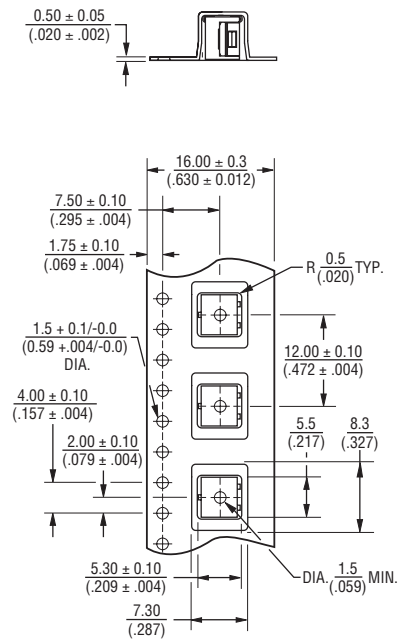
TAPE



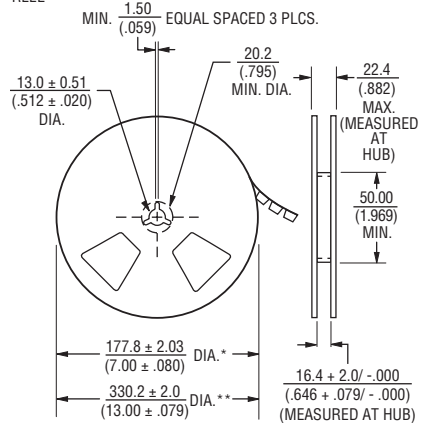
DIMENSIONS:  $\frac{\text{MM}}{\text{INCHES}}$   
 TOLERANCES:  $\pm \frac{0.30}{(.012)}$  EXCEPT WHERE NOTED

### (S Style)

TAPE



REEL



\* Embossed Tape Designator "E"  
 \*\* Embossed Tape Designator "G"  
 (See How To Order chart for further information.)

Meets EIA specification 481.

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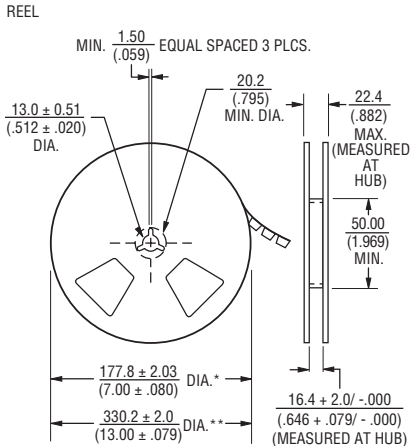
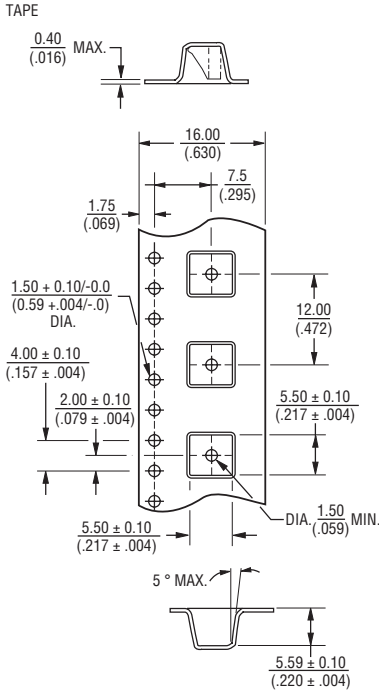
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# 3314 – 4 mm Square Trimpot® Trimming Potentiometer

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## Packaging Specifications

(Z Style)



\* Embossed Tape Designator "E"  
 \*\* Embossed Tape Designator "G"  
 (See How To Order chart for further information.)

Meets EIA specification 481.

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

TOLERANCES:  $\pm \frac{0.30}{(0.012)}$  EXCEPT WHERE NOTED

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## How To Order

3314 J - 1 - 502 E

- Model \_\_\_\_\_  
 Style \_\_\_\_\_  
 Standard or Modified Product Indicator (Styles J, G, H & S) \_\_\_\_\_  
 -1 = Single Slot  
 -2 = Cross Slot  
 -3 = Single Slot w/Reverse Marking  
 -4 = Cross Slot w/Reverse Marking  
 Product Indicator (Style R only)  
 -GM5 = Cross Slot w/Extended Lead Frame  
 -1 = Single Slot  
 -2 = Cross Slot  
 -3 = Single Slot w/Reverse Marking  
 -4 = Cross Slot w/Reverse Marking  
 Product Indicator (Style Z only)  
 -GA4 = Single Slot  
 -1 = Cross Slot  
 -3 = Single Slot w/Reverse Marking  
 -4 = Cross Slot w/Reverse Marking  
 Resistance Code \_\_\_\_\_  
 Embossed Tape Designator (MSL-1)\*\* \_\_\_\_\_  
 E = Styles J, G and R: 500 pcs. / 7" reel  
 Styles S and Z: 200 pcs. / 7" reel  
 G = Styles J and G: 3000 pcs. / 13" reel  
 Style R: 2500 pcs. / 13" reel  
 Styles S and Z: 1000 pcs. / 13" reel  
 \*\*Style H is available in tube packaging only.

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

## Standard Resistance Table

Resistance (Ohms)	Resistance Code
10	100
20	200
50	500
<b>100</b>	<b>101</b>
<b>200</b>	<b>201</b>
<b>500</b>	<b>501</b>
<b>1,000</b>	<b>102</b>
<b>2,000</b>	<b>202</b>
<b>5,000</b>	<b>502</b>
<b>10,000</b>	<b>103</b>
<b>20,000</b>	<b>203</b>
<b>50,000</b>	<b>503</b>
<b>100,000</b>	<b>104</b>
200,000	204
250,000	254
500,000	504
1,000,000	105
2,000,000	205

Popular distribution values listed in boldface. Special resistances available.

# BOURNS®

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-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management