



**THE DATASHEET OF**  
**3314Z-1-502E**





### 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](#)

## 3314 - 4 mm Square Trimpot® Trimming Potentiometer

### 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.

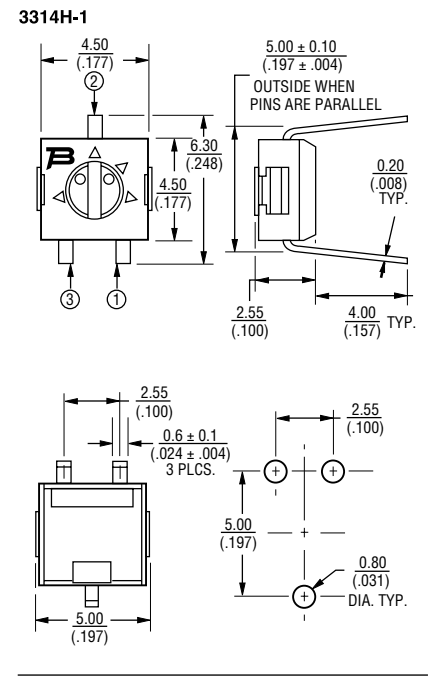
### Environmental Characteristics

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 / 60 seconds  
 Humidity ..... 90-98 % RH, 10 cycles, 240 hours  
 Vibration ..... 20 G TRS ±1 %; VRS ±1 %  
 Shock ..... 100 G TRS ±1 %; VRS ±1 %  
 Load Life  
 .... (@ 70 °C Rated Power 1000 Hours)  
 Rotational Life ..... TRS ±3 %  
 ..... 100 cycles  
 Thermal Shock ..... TRS ±3 %  
 ..... 5 cycles  
 ..... TRS ±2 %; VRS ±1 %

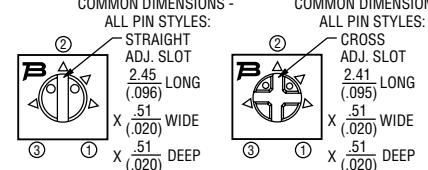
### Physical Characteristics

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

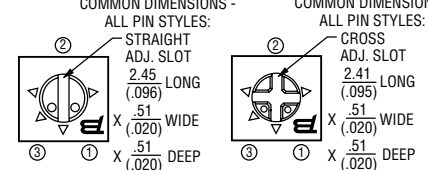
### Product Dimensions



### 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)**

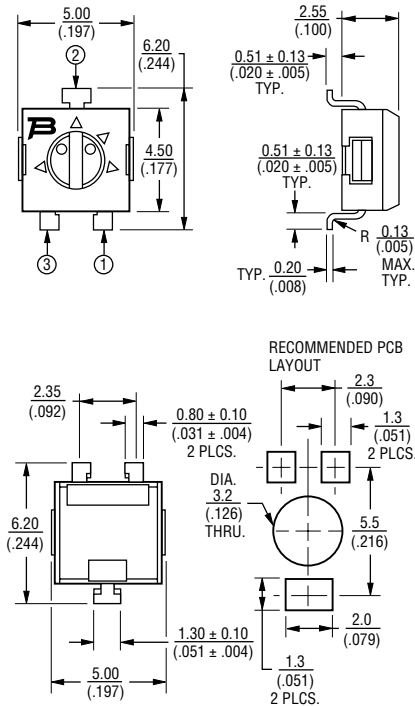
\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
 †"Fluorinert" is a registered trademark of 3M Co.  
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 Users should verify actual device performance in their specific applications.  
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# 3314 - 4 mm Square Trimpot® Trimming Potentiometer

# BOURNS®

## Product Dimensions

### 3314R-1



### 3314R-GM5



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



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



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



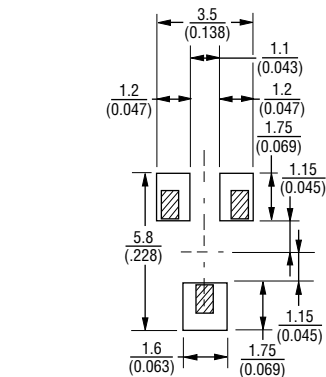
### 3314S-4 (Reverse Marking, Cross Slot)



### 3314S Common Dimensions



### RECOMMENDED PCB LAYOUT



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

# 3314 - 4 mm Square Trimpot® Trimming Potentiometer

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## Product Dimensions

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



ROTOR POSITIONED AS SHOWN WITHIN  $\pm 22^\circ$  OF CENTERLINE OF TERMINAL 2

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



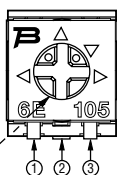
ROTOR POSITIONED AS SHOWN WITHIN  $\pm 22^\circ$  OF CENTERLINE OF TERMINAL 2

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



ROTOR POSITIONED AS SHOWN WITHIN  $\pm 22^\circ$  OF CENTERLINE OF TERMINAL 2

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



ROTOR POSITIONED AS SHOWN WITHIN  $\pm 22^\circ$  OF CENTERLINE OF TERMINAL 2

**3314Z**  
Common Dimensions



RECOMMENDED PCB LAYOUT



## 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.

DIMENSIONS:	MM (INCHES)
TOLERANCES:	$\pm 0.30$ (0.012) EXCEPT WHERE NOTED

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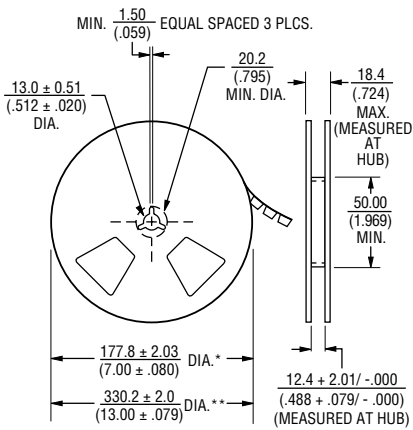
## Packaging Specifications

### (R Style)

TAPE



REEL



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

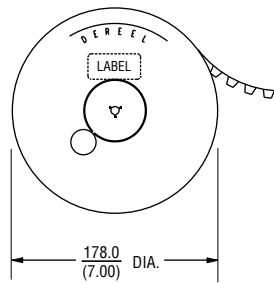
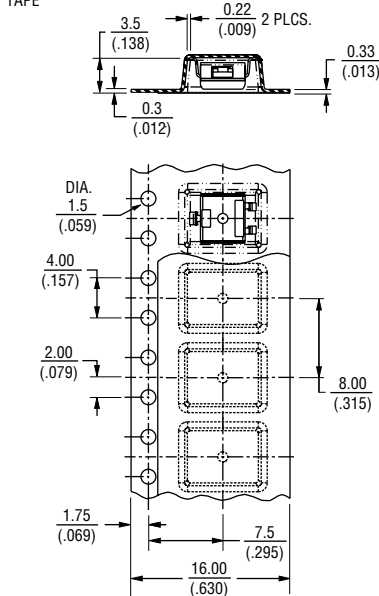
Meets EIA specification 481.

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

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

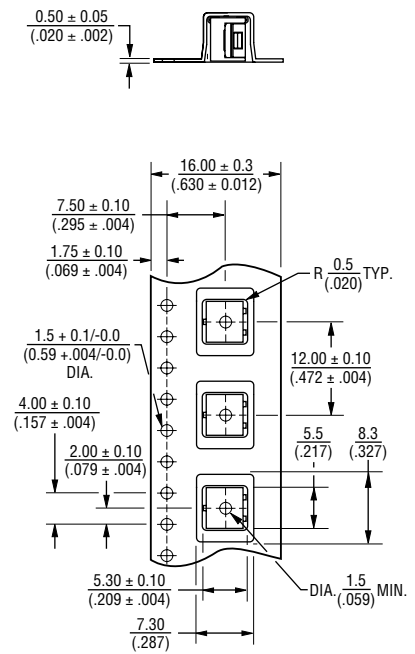
### (R-GM5 Style)

TAPE

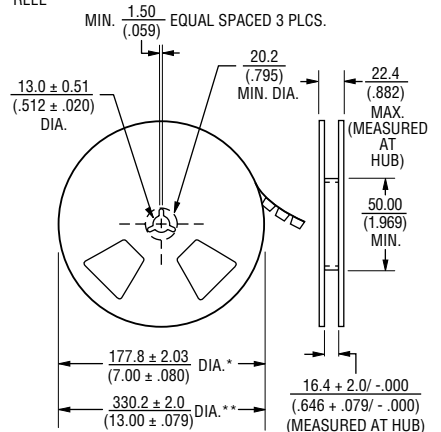


### (S Style)

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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# 3314 - 4 mm Square Trimpot® Trimming Potentiometer

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## Packaging Specifications

(Z Style)



## 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.

## 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.

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

\* 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:  $\pm \frac{0.30}{(.012)}$  EXCEPT WHERE NOTED

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