

## Features

- Surface Mount 4 mm Square / Multiturn Cermet / Industrial / Sealed
- Halogen free\*\* with date code 114
- Sealed to withstand board wash processing
- Pick and place centering design, with flush adjustment
- 4mm design meets EIA/EIAJ/IPC/VECI SMD standard trimmer footprint
- Low CRV - 1 %
- RoHS compliant\* - see [processing information](#) on RoHS compliant surface mount trimmers
- For trimmer applications/processing guidelines, [click here](#)

## 3224 - 4 mm SMD Trimpot® Trimming Potentiometer

### Electrical Characteristics

Standard Resistance Range	10 to 2 megohm
	(see standard resistance table)
Resistance Tolerance	±10 % std.
Absolute Minimum Resistance	1 % or 2.0 ohms
	(whichever is greater)
Contact Resistance Variation	1 % or 3 ohms max.
Resolution	Essentially Infinite
Insulation Resistance	500 vdc.
	100 megohms min.
Dielectric Strength	
Sea Level	600 vac (1 minute)
Adjustment Angle	12 turns nom.

### Environmental Characteristics

Power Rating (300 volts max.)	
85 °C	0.25 watt
150 °C	0 watt
Temperature Range	-65 °C to +150 °C
Temperature Coefficient	±100 ppm/°C
Humidity	MIL-STD 202 Method 106
	TRS ±2 %; IR 10 megohms
Vibration	20 G TRS ±1 %; VRS ±1 %
Shock	100 G TRS ±1 %; VRS ±1 %
Load Life	@ 85 °C rated power 1,000 hours
TRS	3 ohms or 3 %
	(whichever is greater)
Rotational Cycling	200 cycles
TRS	3 ohms or 3 %
	(whichever is greater)
Thermal Shock	5 cycles
	TRS ±2 %; VRS ±1 %

### Physical Characteristics

Mechanical Stop	Wiper idles
Torque	180 g-cm max.
Weight	Approximately 0.01 oz.
Marking	Manufacturer's code, resistance code and date code
Solderability	Per MIL-STD-202, Method 208
Wiper	.50 % (Actual TR) ±10 %
Flammability	UL94V0
Pushover Strength	
J, G	4.4 lbs.
W, X	1 lb.
Adjustment Tool	H-91

### How To Order

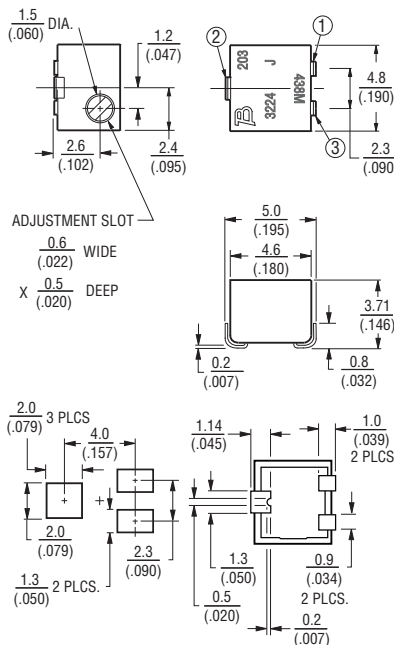
**3224 J - 1 - 502 E**

Model	3224
Style	J
Standard or Modified	1
Product Indicator	502
	-1= IR Reflow (standard)
	†-2= Wave Solderable
	-FW5= .070" ± .010" Shaft Extension
Resistance Code	E
Embossed Tape Designator	
E	Style J, G: 500 pcs./7" reel (standard)
	Style W: 250 pcs./7" reel (standard)
	Style X: 200 pcs./7" reel (standard)
G	Style J, G: 1500 pcs./13" reel (standard)
	Style W: 1000 pcs./13" reel (standard)
	Style X: 850 pcs./13" reel (standard)
Blank	Style J, G: 1500 pcs./13" reel (FW5)
	Style W, X: 600 pcs./13" reel (FW5)

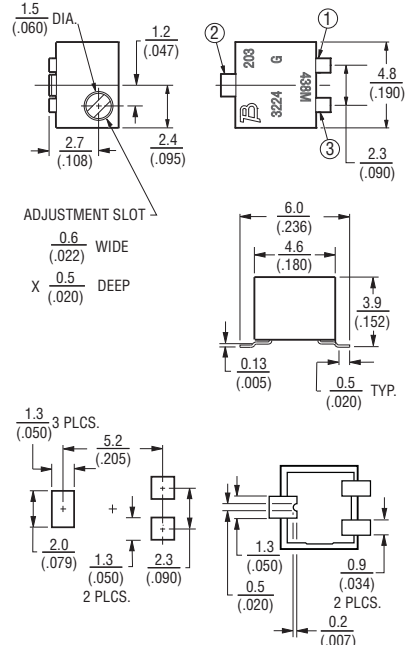
Consult factory for other available options.  
† -2 has a treated stainless steel shaft

### Product Dimensions

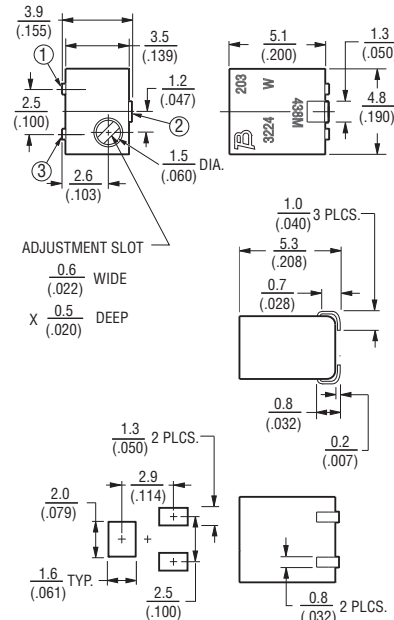
#### 3224J Side Adjust



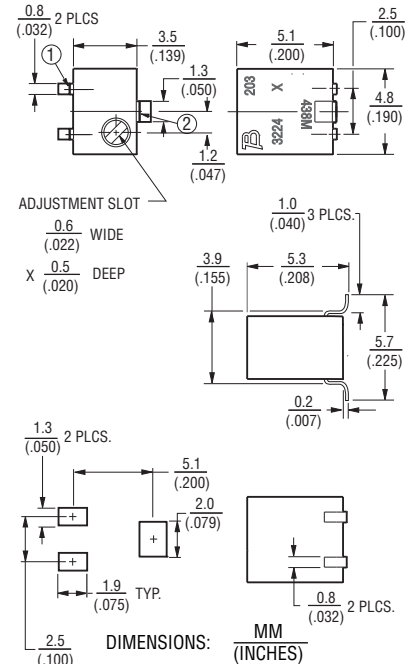
#### 3224G Side Adjust



#### 3224W Top Adjust



#### 3224X Top Adjust



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

\*\*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. 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.

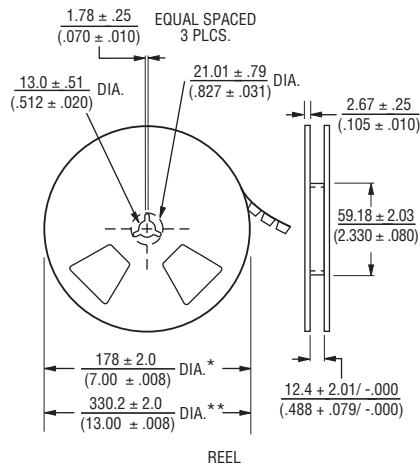
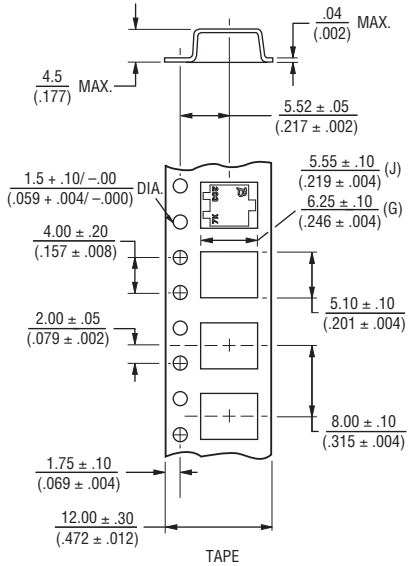
## Additional Features

- Top and side adjust styles
- J-hook, and gull-wing

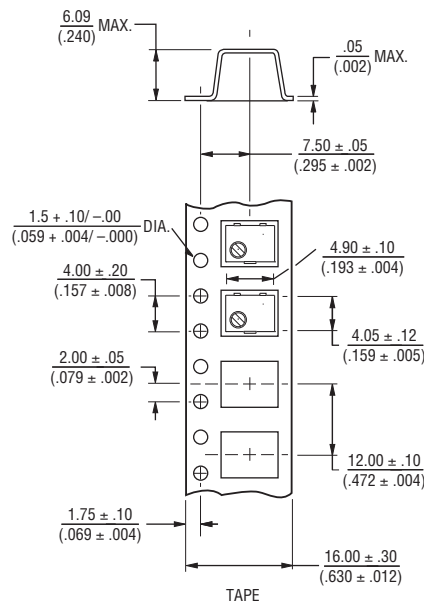
# 3224 - Packaging Specifications

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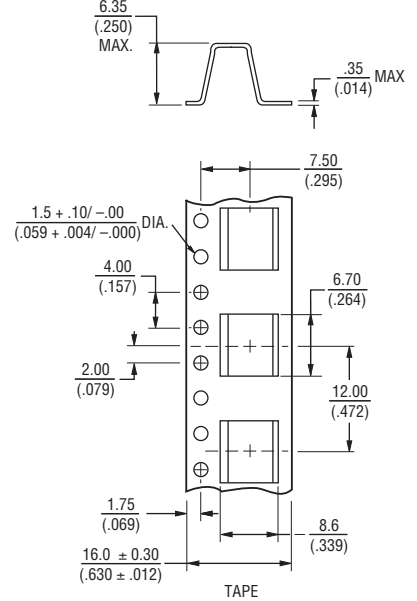
### J & G Styles



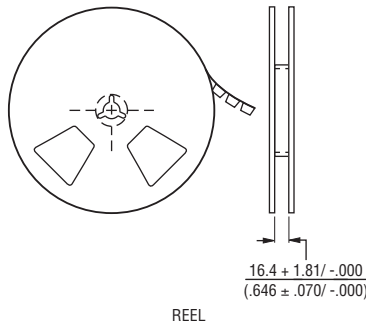
### W Style



### X Style



### W & X Style Reel

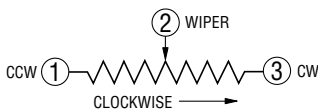


\* Embossed Tape Designator "E"  
\*\* Embossed Tape Designator "G"  
(See How To Order chart for further information.)

Cover tape peel strength: Meets EIA specification 481.

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

Cover tape peel strength: Meets EIA specification 481.



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

### 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
500,000	504
1,000,000	105
2,000,000	205

Popular distribution values listed in boldface.  
Special resistances available.

REV. 04/14

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