

## 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 lead free 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	..... 4.4 lbs. J, G ..... 1 lb.
Adjustment Tool	..... H-91

### How To Order

Model	<b>3224 J - 1 - 502 E</b>
Style	.....
Standard or Modified Product Indicator	.....
Resistance Code	.....
Embossed Tape Designator	.....
Blank	.....

-1= IR Reflow (standard)  
 †-2= Wave Solderable  
 -FW5= .070 " ± .010 " Shaft Extension  
 -GJ4= MSL 2a Packaging (for -1 only)

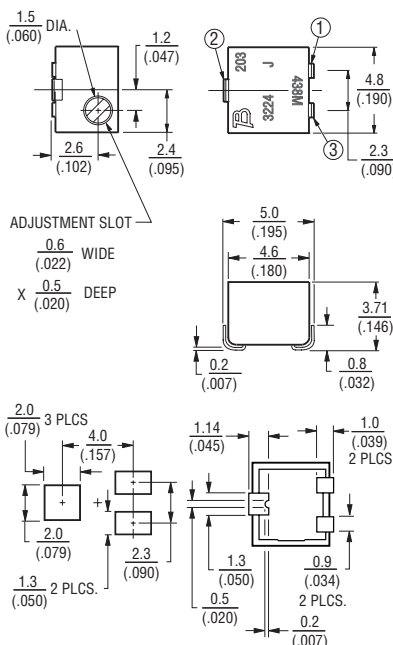
E = Style J, G: 500 pcs./7 " reel (standard)  
 Style W: 250 pcs./7 " reel (standard)  
 Style X: 200 pcs./7 " reel (standard)  
 G = Style J, G: 1500 pcs./13 " reel (standard)  
 Style W: 1000 pcs./13 " reel (standard)  
 Style X: 850 pcs./13 " reel (standard)

Blank = Style J, G: 1500 pcs./13 " reel (FW5)  
 Style W, X: 600 pcs./13 " reel (FW5)

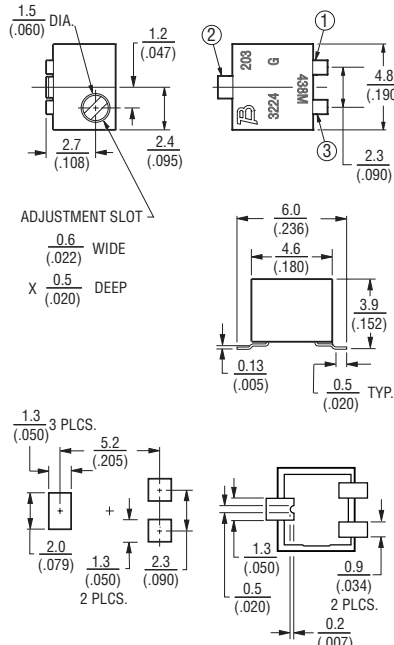
Consult factory for other available options.  
 † -2 has a treated stainless steel shaft

### Product Dimensions

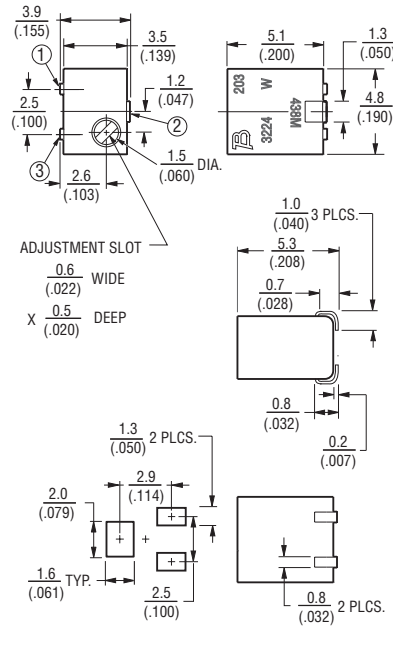
#### 3224J Side Adjust



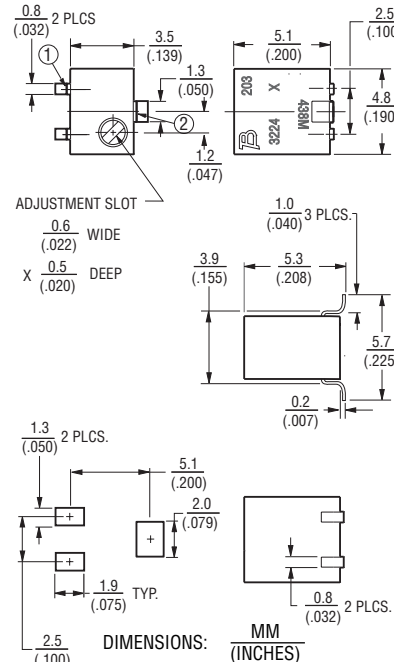
#### 3224G Side Adjust



#### 3224W Top Adjust



#### 3224X Top Adjust



\*RoHS Directive 2002/95/EC Jan 27, 2003 including Annex.  
 \*\*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. Customers should verify actual device performance in their specific applications.

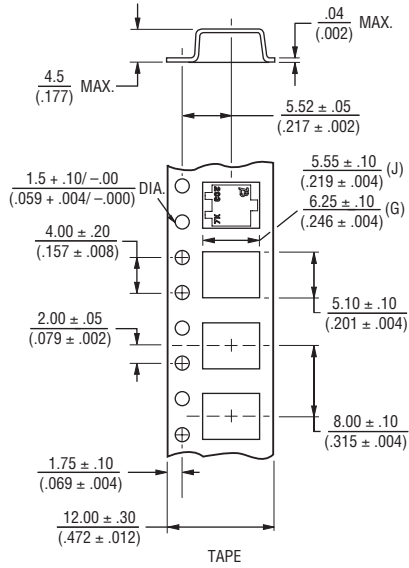
## Additional Features

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

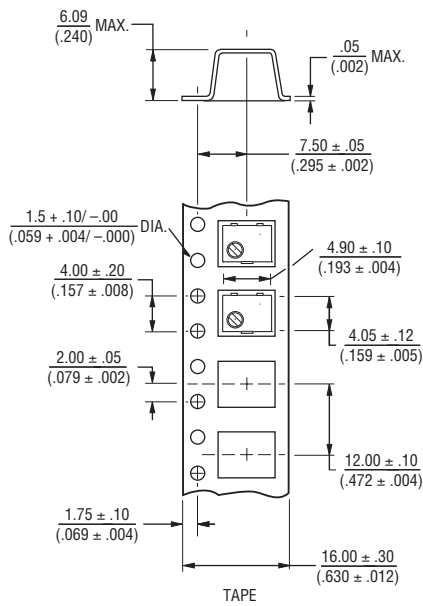
# 3224 - Packaging Specifications

**BOURNS®**

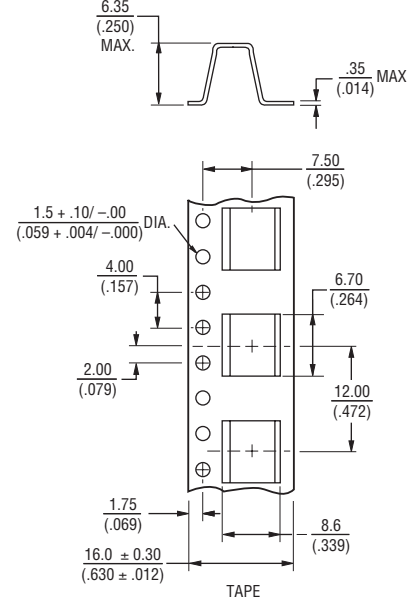
### J & G Styles



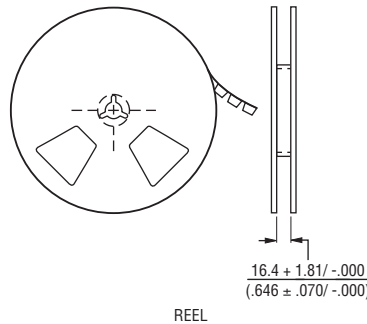
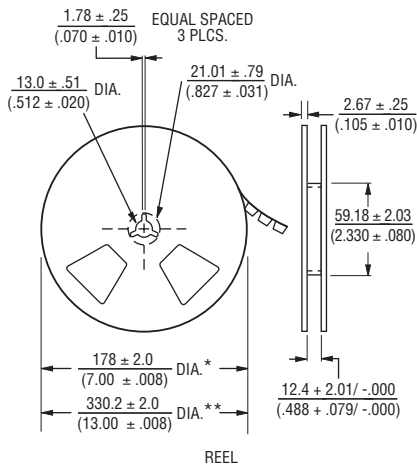
### W Style



### X Style



### W & X Style Reel

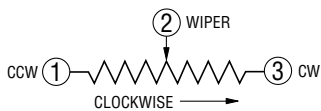


\* Embossed Tape Designator "E"  
 \*\* Embossed Tape Designator "G"  
 (See How To Order chart for further information.)

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. 04/11

"Trimpot" is a registered trademark of Bourns, Inc.  
 Specifications are subject to change without notice.  
 Customers should verify actual device performance in their specific applications.