

## Features

- Surface Mount 4 mm Square / Multiturn Cermet / Industrial / Sealed
- 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 %
- DESC selected material drawing #92021
- RoHS compliant\* - see [processing information](#) on lead free surface mount trimmers

# 3224 - 4 mm SMD 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.....11 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

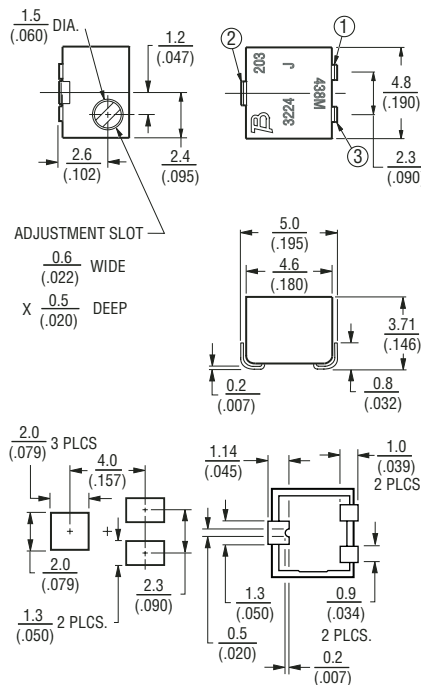
## How To Order

**3224 J - 1 - 502 E**

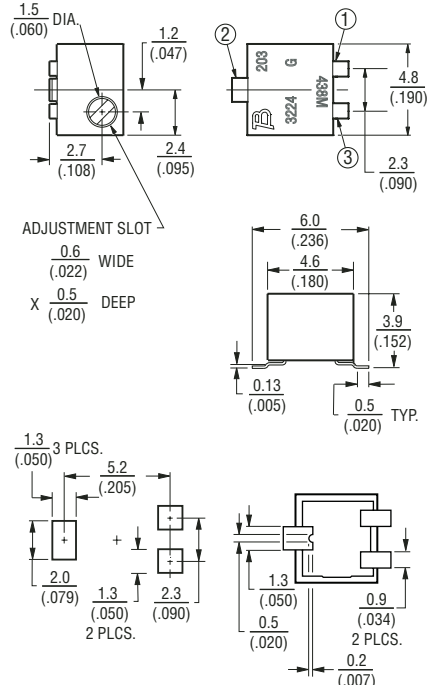
Model \_\_\_\_\_  
 Style \_\_\_\_\_  
 Standard or Modified Product Indicator \_\_\_\_\_  
 -1 = IR Reflow (standard)  
 †-2 = Wave Solderable  
 -FW5 = .070" ± .010" Shaft Extension  
 Resistance Code \_\_\_\_\_  
 Embossed Tape Designator \_\_\_\_\_  
 E = Style J, G: 500 pcs./7" reel (standard)  
 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

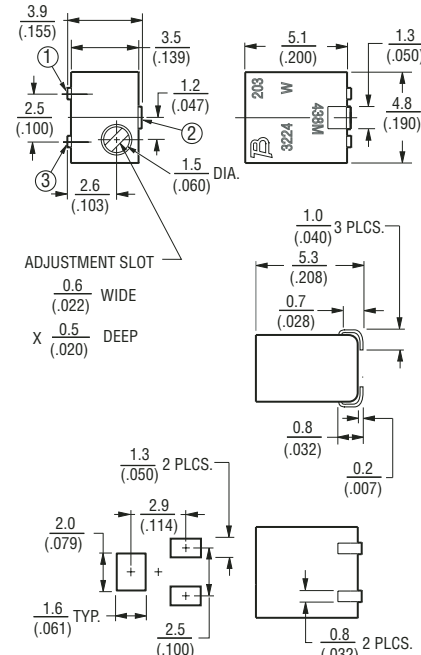
### 3224J Side Adjust



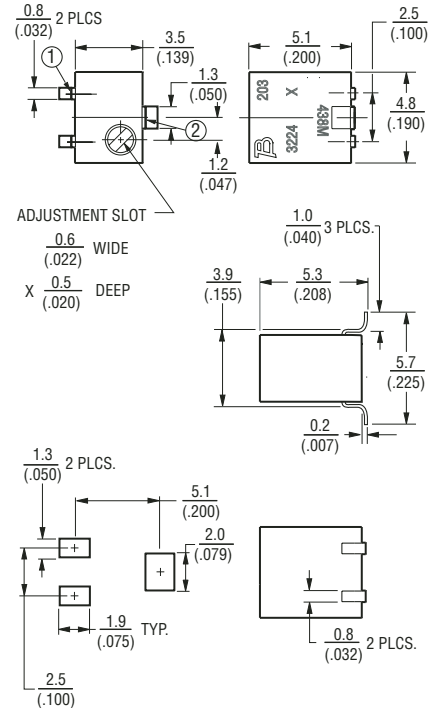
### 3224G Side Adjust



### 3224W Top Adjust



### 3224X Top Adjust



\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex.  
 Specifications are subject to change without notice.  
 Customers should verify actual device performance in their specific applications.

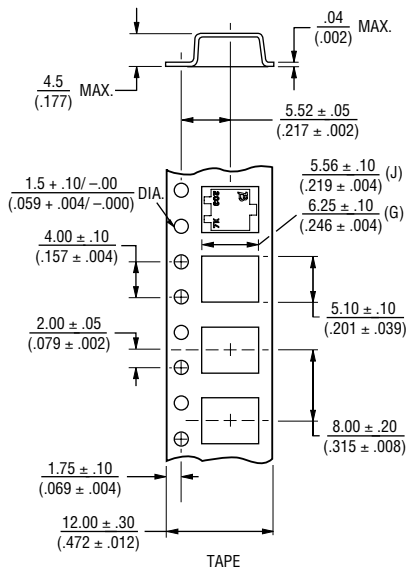
## Additional Features

- Top and side adjust styles
- J-hook, and gull-wing
- Patent #5047746 advanced drive/wiper mechanism

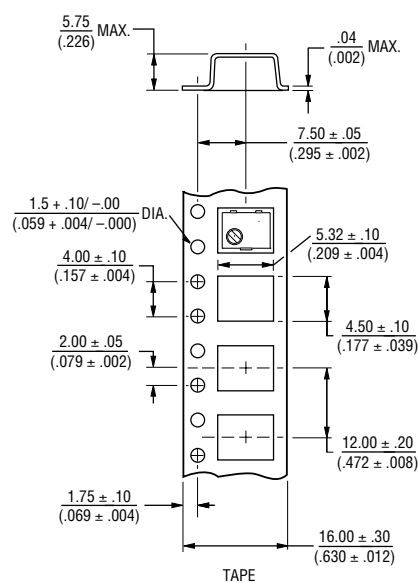
# 3224 - Packaging Specifications

**BOURNS®**

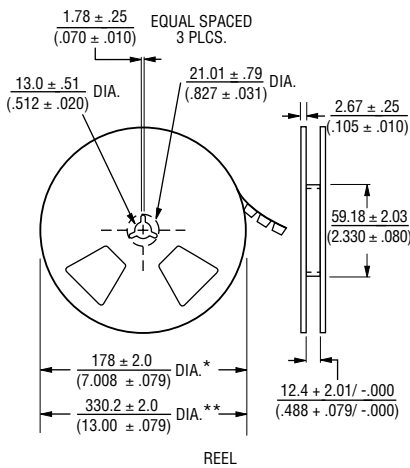
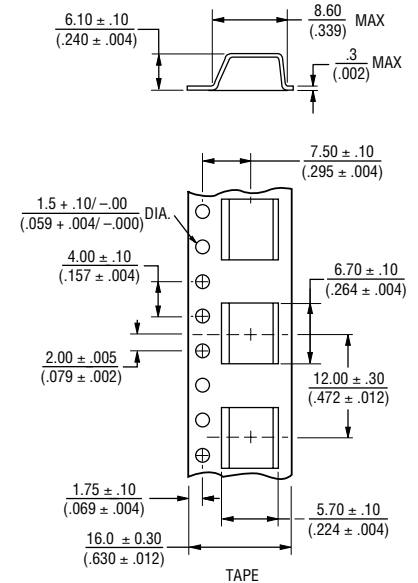
### J & G Styles



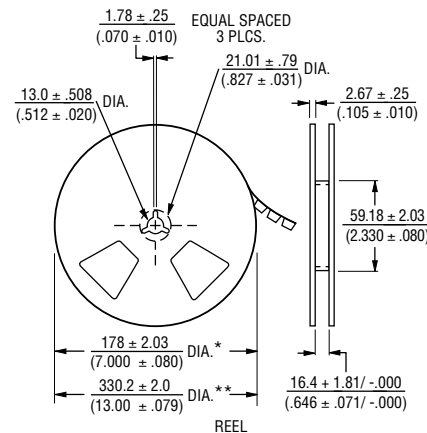
### W Style



### 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.

TOLERANCES: ± 0.25 (.010) EXCEPT WHERE NOTED

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

### 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 resistance values listed in boldface. Special resistances available.

