



## Features

- Surface mount and through-hole versions
- 12 mm Square / Dustproof
- One million rotational cycles
- Thin profile
- RoHS compliant\*
- AEC-Q200 compliant

## Applications

- Volume control on audio equipment
- Motion controllers
- Dishwasher control systems
- Temperature range

# 3382 - 12 mm Rotary Position Sensor

### Electrical Characteristics

Standard Resistance Range  
 ..... 2.5K to 100K ohms  
 Resistance Tolerance ..... ±30 % std.  
 Linearity ..... ±2 %  
 Resolution ..... Essentially infinite  
 Insulation Resistance @ 500 VDC  
 ..... 100 megohms min.

Dielectric Strength  
 Sea Level ..... 500 VAC  
 70,000 Feet ..... 350 VAC  
 Adjustment Angle ..... 330 ° nom.

### Environmental Characteristics

Power Rating (16 volts max.)  
 50 °C ..... 0.05 watt  
 120 °C ..... 0 watt

Operating Temperature Range  
 ..... -40 °C to +120 °C

Temperature Coefficient ..... ±500 ppm/°C  
 Humidity ..... TRS ±20 %  
 Shock ..... 20 G TRS ±10 %; VRS ±10 %  
 Load Life @ 50 °C Rated Power  
 ..... TRS ±10/-20 %  
 Rotational Life ..... 1,000,000 cycles  
 TRS ±20 %  
 Thermal Shock ..... 5 cycles  
 TRS ±20 %; VRS ±10 %  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM) ..... N/A

### Physical Characteristics

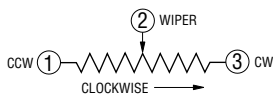
Mechanical Angle ..... Continuous rotation  
 Torque ..... 30 gf-cm max.  
 Weight ..... Approximately 0.0321 g  
 Marking ..... Resistance code  
 and date code

### Standard Packaging

G Style ..... 1000 pcs./13" reel  
 H Style ..... 50 pcs./tube  
 IP Rating ..... IP40

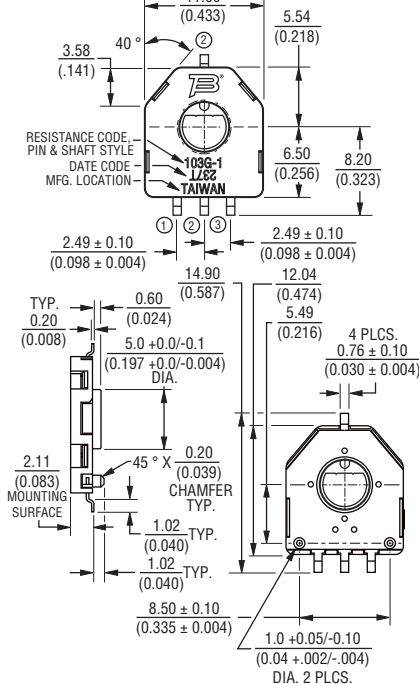
### Standard Resistance Table

Resistance (Ohms)	Resistance Code
2,500	252
5,000	502
10,000	103
25,000	253
50,000	503
100,000	104



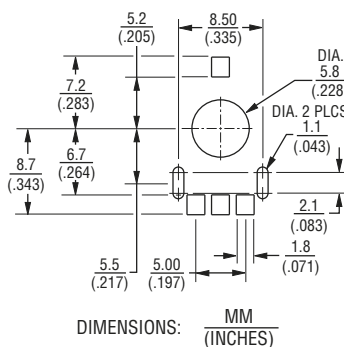
### Product Dimensions

#### 3382G

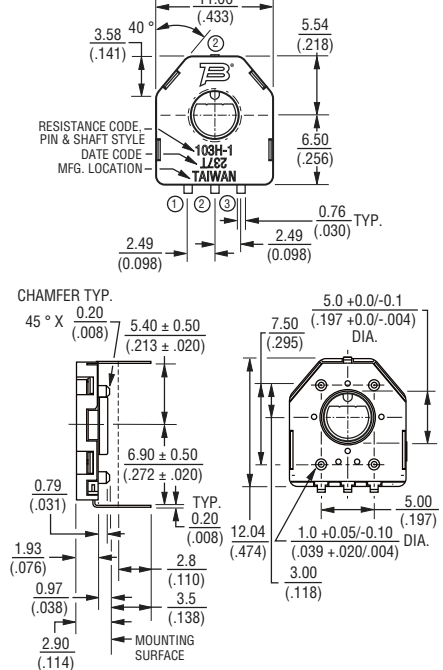


NOTE: ALL TERMINATIONS TO BE COPLANAR WITHIN  $\frac{0.1}{(0.001)}$

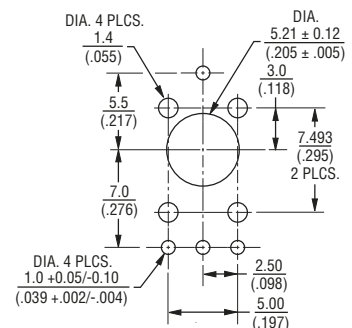
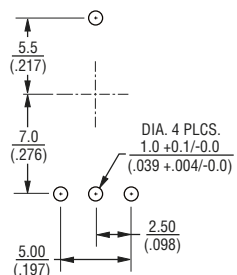
### Recommended Land Pattern



#### 3382H



### Recommended Land Patterns



TOLERANCES:  $\pm 0.30$  UNLESS OTHERWISE NOTED  
 $\pm (0.12)$



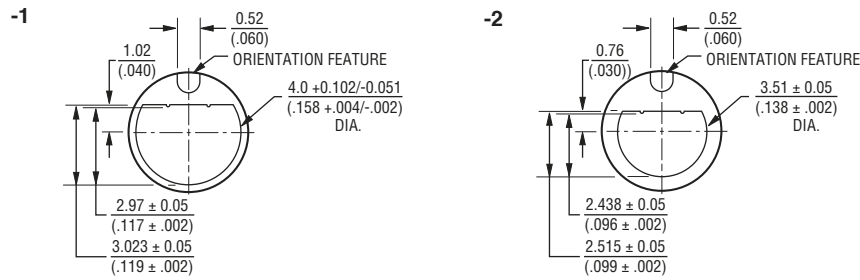
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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# 3382 - 12 mm Rotary Position Sensor

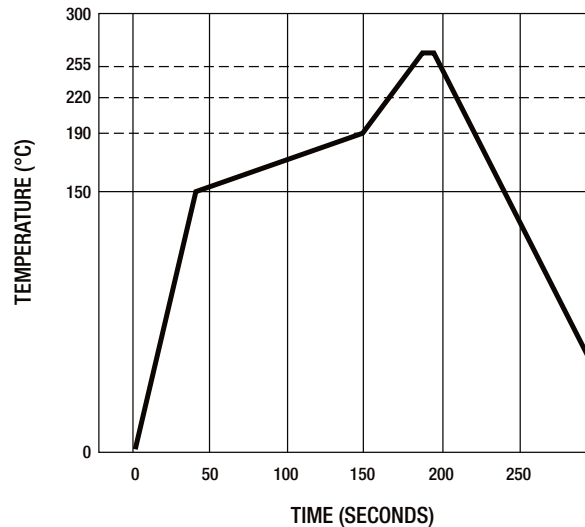
**BOURNS®**

## Rotor Dimensions



## Processing Information

Process Description	Materials	Temperature	Time Interval
1. Apply solder paste to test board (8 - 10 mil thick)	<ul style="list-style-type: none"> <li>• Sn/Ag/Cu Alloy water soluble or no clean solder paste</li> <li>• Single sided epoxy glass (G10) (UL approved)</li> <li>• PC board approx. 4x4x.06 in.</li> </ul>	Room temperature	
2. Place test units onto board	6 units/board		
3. Ramp up	Convection oven		2.5 °C ±0.5 °/second
4. Preheat		150 °C to 190 °C	90 ±30 seconds
5. Time above liquidus		220 °C	60-90 seconds
6. Peak temperature			260 °C +0 °/-5 ° 10-20 sec. within 5 °C of peak
7. Ramp down		Room temperature	3 °C ±0.5 °C/second



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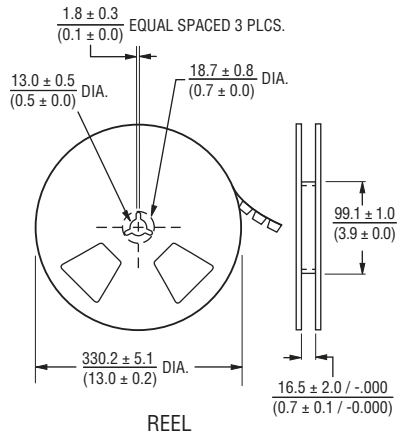
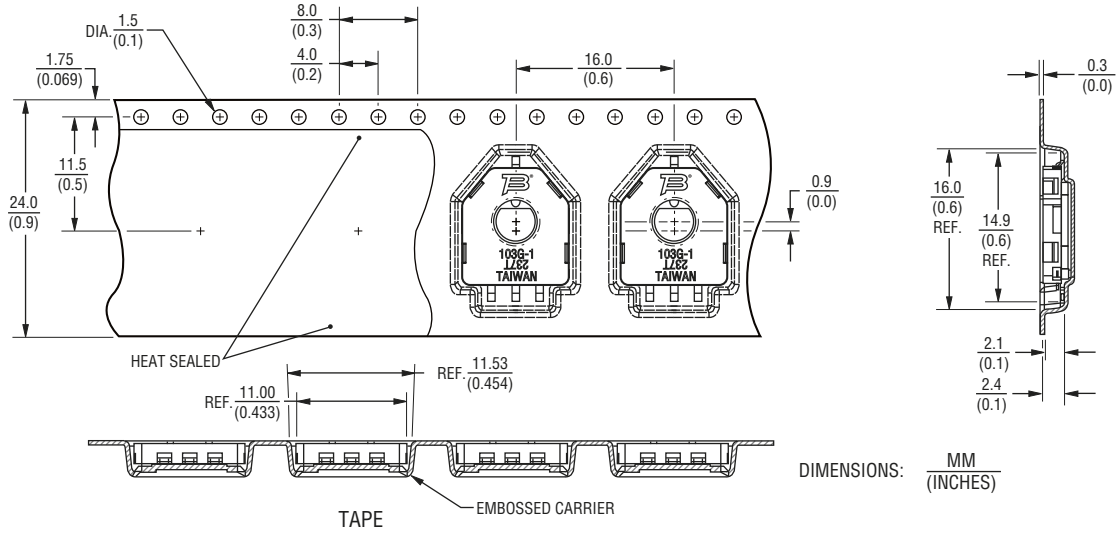
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# 3382 - 12 mm Rotary Position Sensor

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## Packaging Specifications



## How To Order

**3382 G - 1 - 103 G**

Model \_\_\_\_\_  
 Style \_\_\_\_\_  
     G = SMD with 8.5 mm Locator Pin Spacing  
     H = Through-hole with 5 mm x 7.5 mm  
         Locator Pin Spacing  
 Standard Product Indicator \_\_\_\_\_  
     -1 = 4 mm Shaft Diameter  
     -2 = 3.5 mm Shaft Diameter  
 Resistance Code \_\_\_\_\_  
 Packaging Designator \_\_\_\_\_  
     G = 1000 pcs./13" Reel (G Style)  
     Blank = 50 pcs./Tube (H Style)

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