

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
- Automotive temperature range

3382 - 12 mm Rotary Position Sensor

Electrical Characteristics

Standard Resistance Range 2.5K to 100K ohms
 Resistance Tolerance $\pm 30\%$ std.
 Linearity $\pm 2\%$
 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 $\pm 20\%$
 Shock 20 G TRS $\pm 10\%$; VRS $\pm 10\%$
 Load Life @ 50 °C Rated Power TRS $\pm 10\%$ -20 %
 Rotational Life 1,000,000 cycles TRS $\pm 20\%$
 Thermal Shock 5 cycles TRS $\pm 20\%$; VRS $\pm 10\%$
 Moisture Sensitivity Level 1
 ESD Classification (HBM) N/A

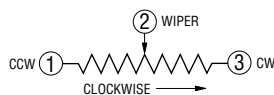
Physical Characteristics

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

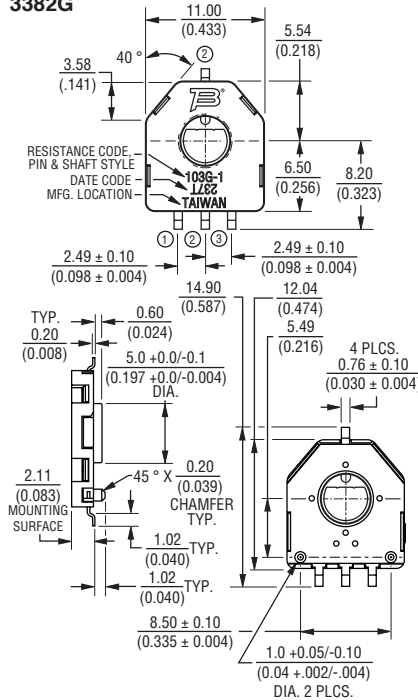
Standard Resistance Table

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



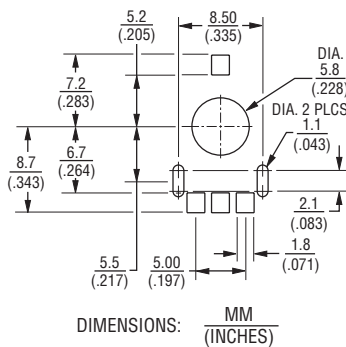
Product Dimensions

3382G

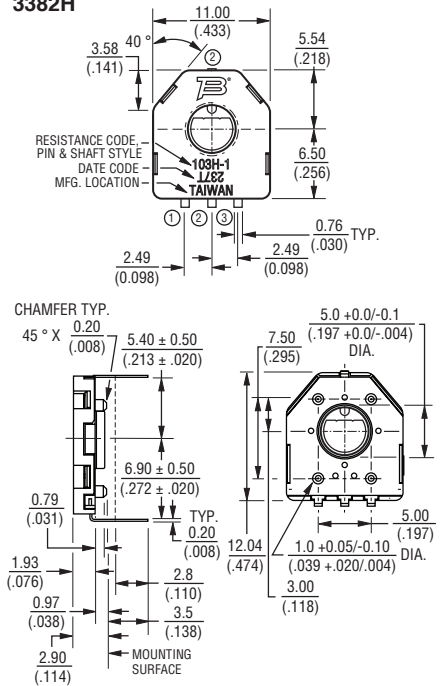


NOTE: ALL TERMINATIONS TO BE COPLANAR WITHIN $\frac{0.1}{(0.001)}$

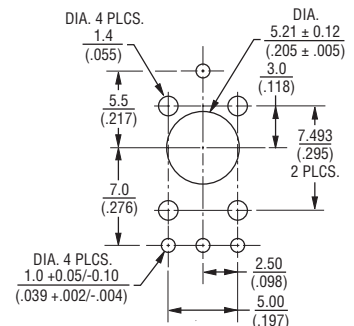
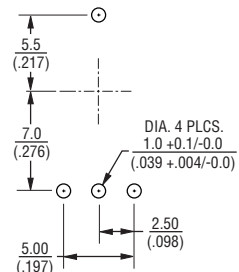
Recommended Land Pattern



3382H



Recommended Land Patterns



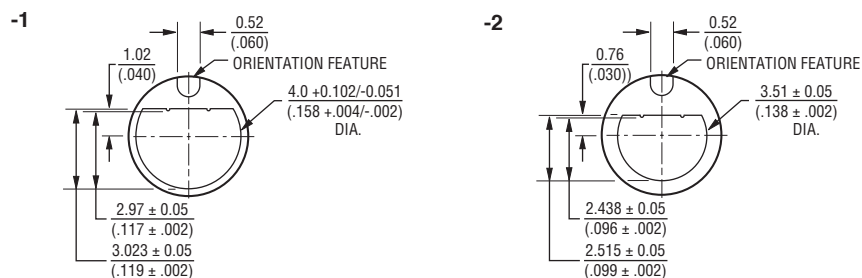
TOLERANCES: ± 0.30 UNLESS OTHERWISE NOTED
 $\pm (0.12)$

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

3382 - 12 mm Rotary Position Sensor

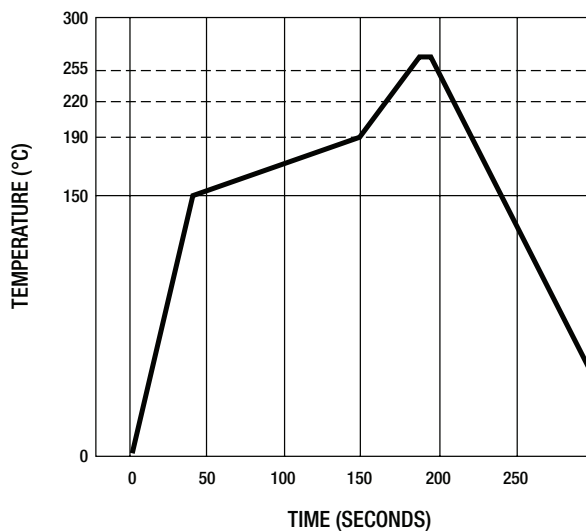
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Rotor Dimensions



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"> • Sn/Ag/Cu Alloy water soluble or no clean solder paste • Single sided epoxy glass (G10) (UL approved) • PC board approx. 4x4x.06 in. 	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



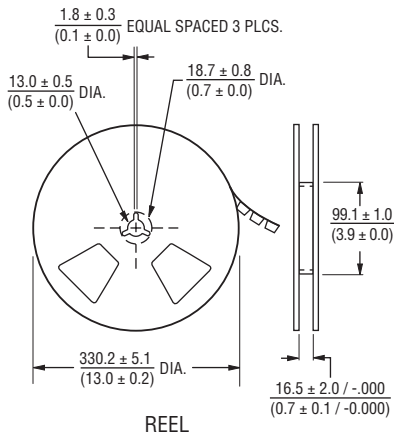
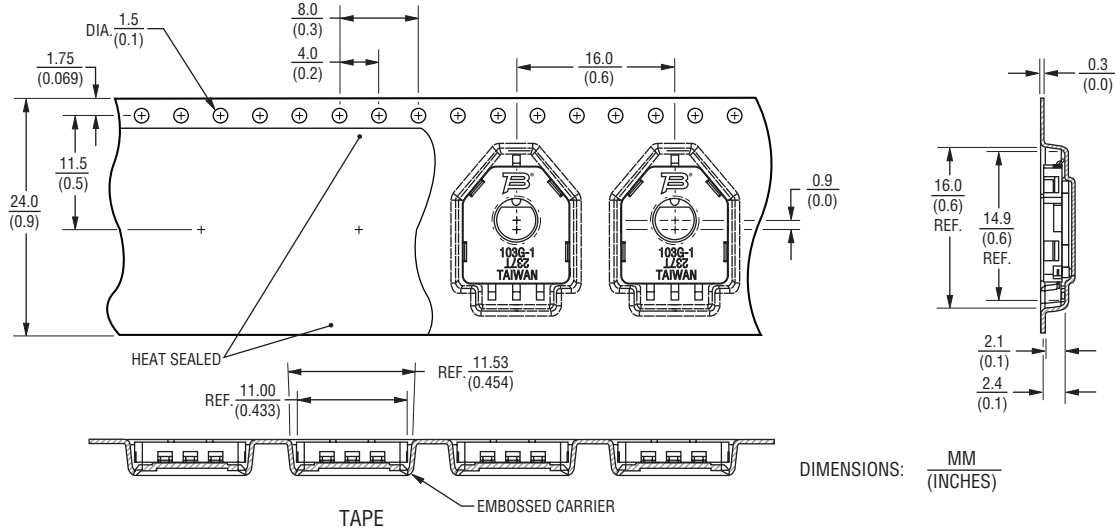
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3382 - 12 mm Rotary Position Sensor

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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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REV. 05/18

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