



Features

- Surface mount and through-hole versions
- 12 mm Square / Dustproof
- One million rotational cycles
- Thin profile
- RoHS 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 $+120^\circ\text{C}$
 Temperature Coefficient ... ± 500 ppm/ $^\circ\text{C}$
 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 $\pm 10\%$

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

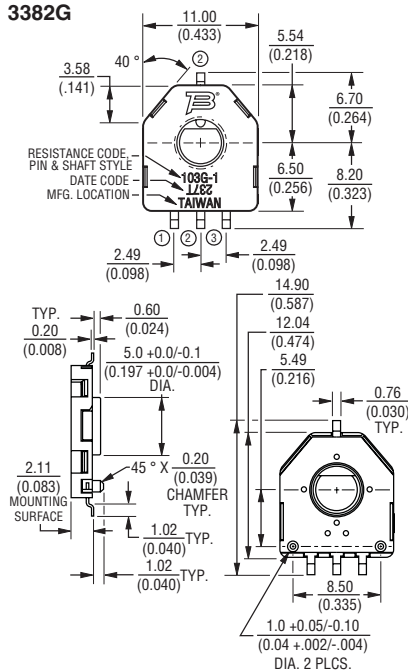
How To Order

3382 G - 1 - 103 G

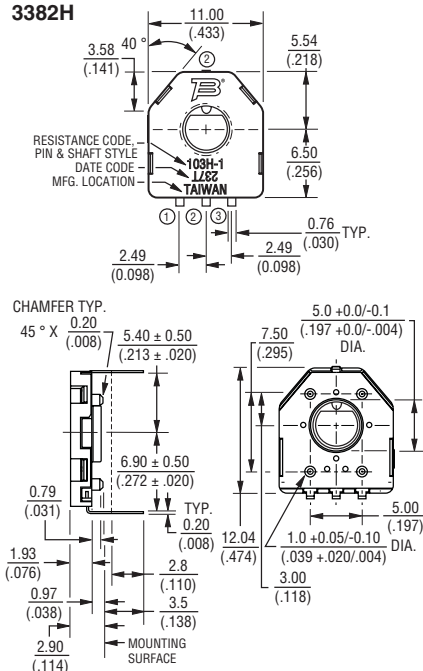
Model _____
 Style _____
 G = SMD with 8.5 mm Locator Pin Spacing
 H = Through-hole with 5 mm x 7.5 mm Locator Pin Spacing
 Standard Product Indicator _____
 -1 = 4 mm Shaft Diameter
 -2 = 3.5 mm Shaft Diameter
 Resistance Code _____
 Packaging Designator _____
 G = 1000 pcs./13" Reel (G Style)
 Blank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

Product Dimensions

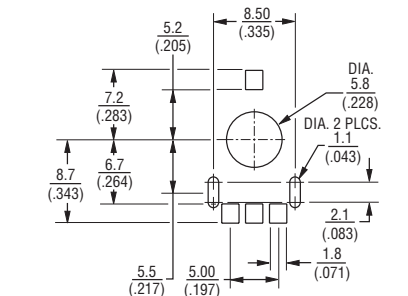
3382G



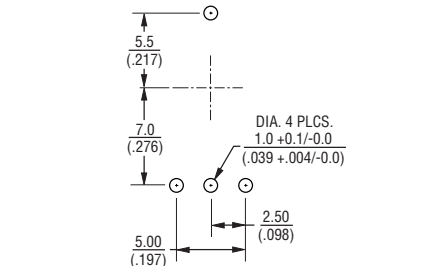
3382H



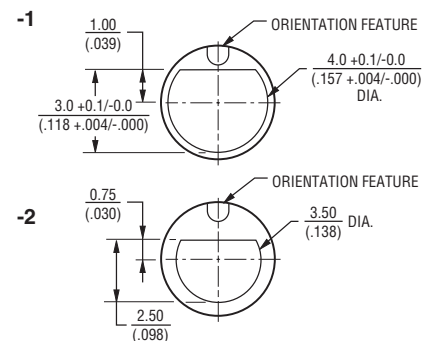
Recommended Land Pattern



Recommended Land Pattern



Rotor Dimensions

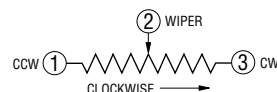


DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$
 TOLERANCES: ± 0.30 UNLESS OTHERWISE NOTED
 $\pm (0.012)$

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

*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.

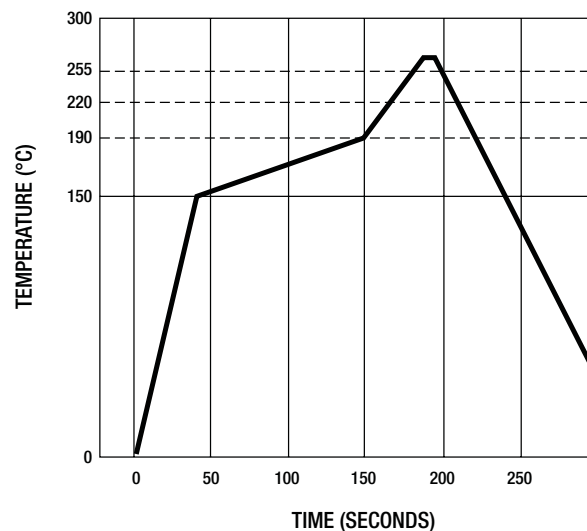


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Processing Information

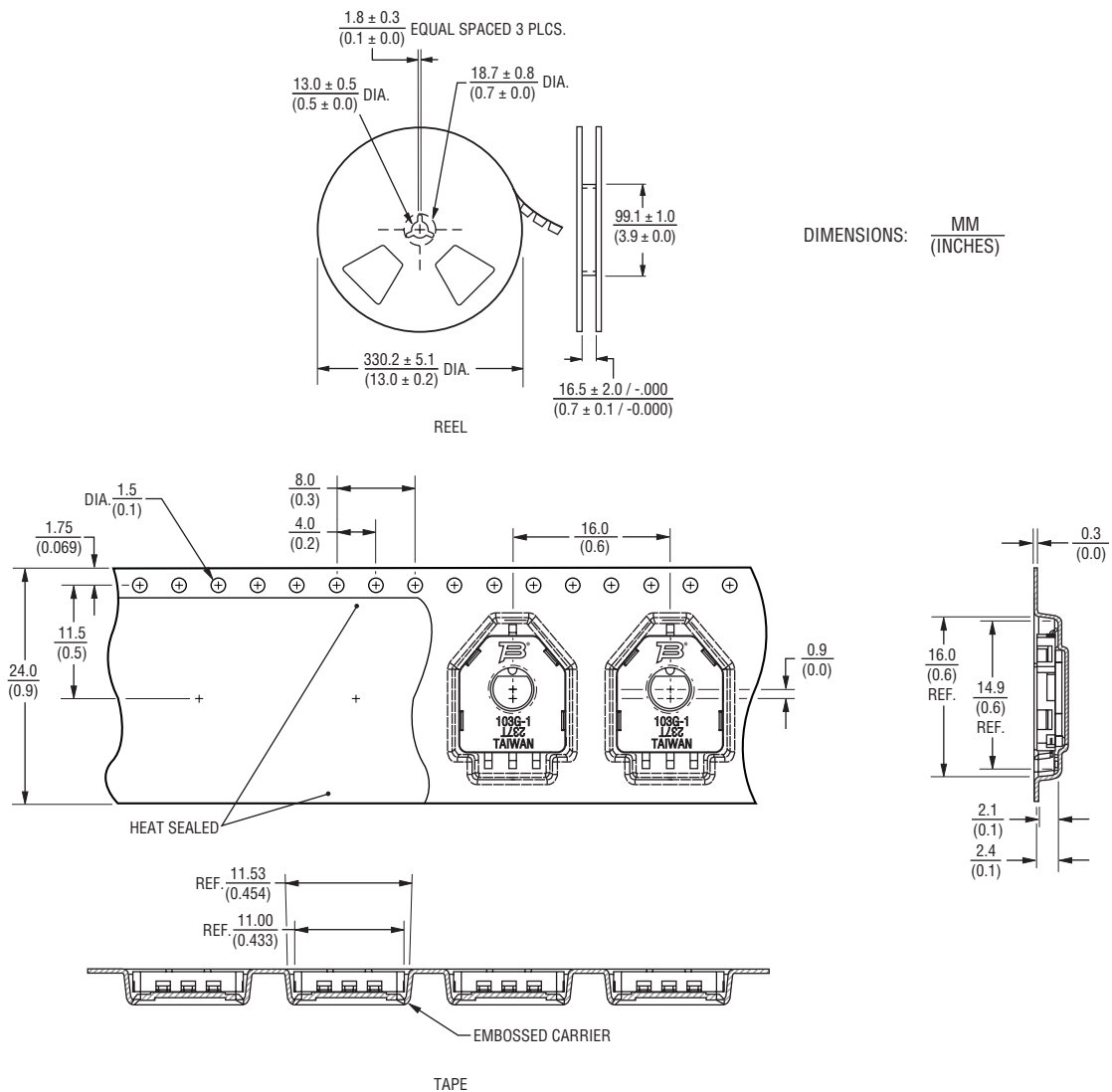
Process Description	Materials	Temperature	Time Interval
1. Apply solder paste to test board (8 - 10 mil thick)	• Sn/Ag/Cu Alloy water soluble or no clean solder paste • Single sided epoxy glass (G10) (UL approved) • PC board approx. 4x4x.06 in.	Room temperature	
2. Place test units onto board	6 units/board		
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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Packaging Specifications



REV. 03/10

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