

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 $+10/-20\%$
 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

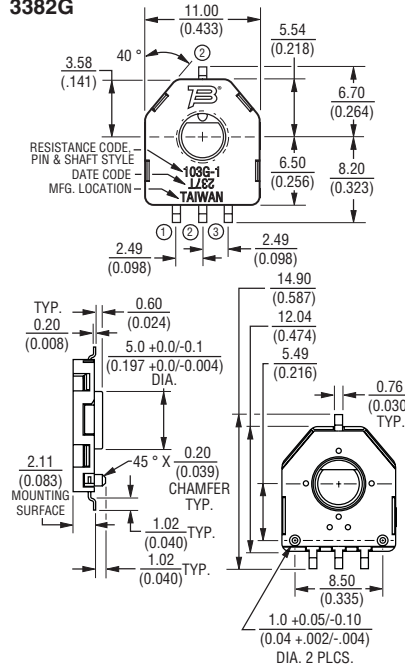
How To Order

3382 G - 1 - 103 G

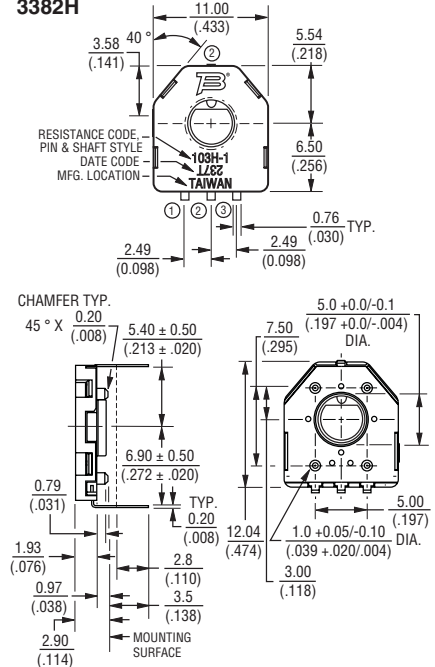
Model _____
 Style _____
 G = SMD with 8.5 mm Locator Pin Spacing
 H = Through-hole with 5 mm x 7.5 mm Locator Pin Spacing
 Standard Product Indicator _____
 -1 = 4 mm Shaft Diameter
 -2 = 3.5 mm Shaft Diameter
 Resistance Code _____
 Packaging Designator _____
 G = 1000 pcs./13" Reel (G Style)
 Blank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

Product Dimensions

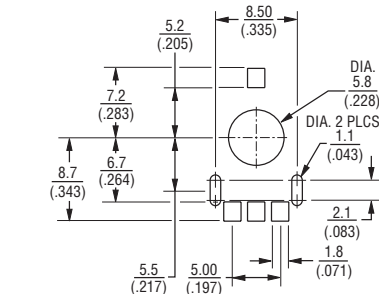
3382G



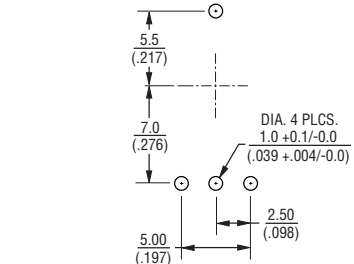
3382H



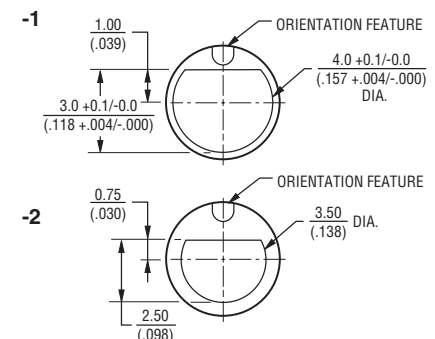
Recommended Land Pattern



Recommended Land Pattern



Rotor Dimensions

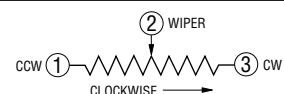


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$
 TOLERANCES: ± 0.30 UNLESS OTHERWISE NOTED
 $\pm (0.012)$

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

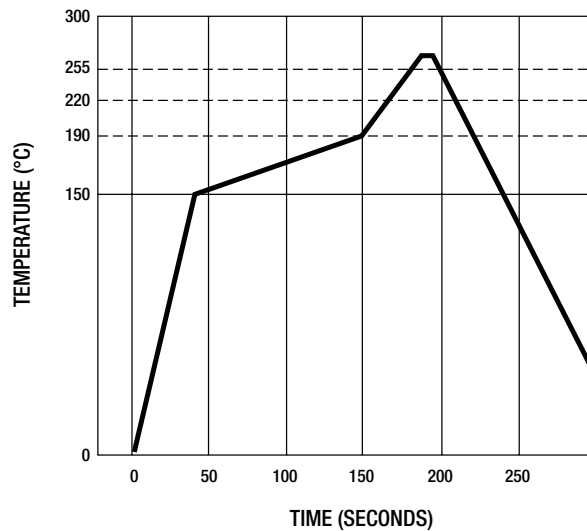


3382 - 12 mm Rotary Position Sensor

BOURNS®

Processing Information

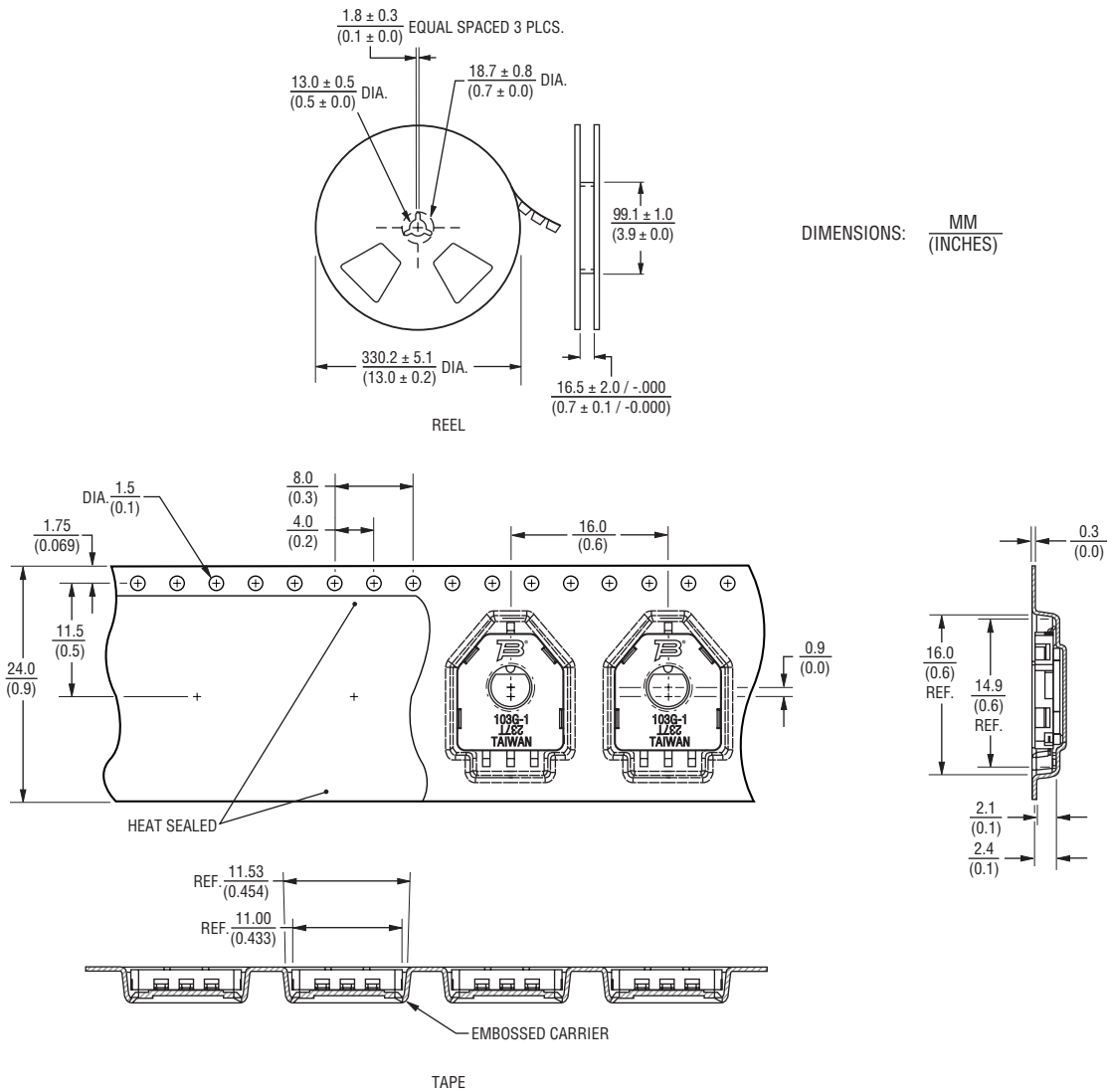
| Process Description | Materials | Temperature | Time Interval |
|--|---|------------------|--|
| 1. Apply solder paste to test board (8 - 10 mil thick) | <ul style="list-style-type: none"> • Sn/Ag/Cu Alloy water soluble or no clean solder paste • Single sided epoxy glass (G10) (UL approved) • PC board 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 |



3382 - 12 mm Rotary Position Sensor

BOURNS®

Packaging Specifications



REV. 07/09

Specifications are subject to change without notice.
 Customers should verify actual device performance in their specific applications