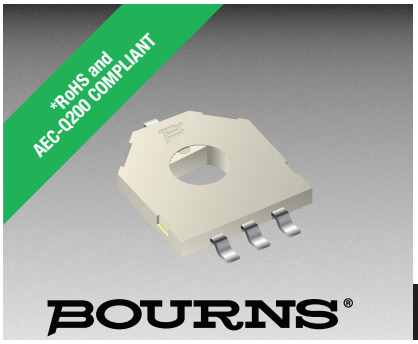


BOURNS®

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

3382 - 12 mm Rotary Position Sensor

Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

Electrical Characteristics

Standard Resistance Range ..... 2.5K to 100K ohms
Resistance Tolerance ..... ±30 % std.
Independent Linearity(1) ..... ±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

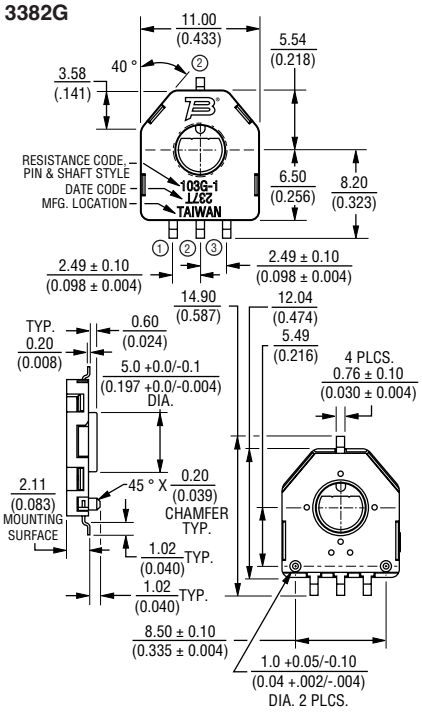
Physical Characteristics

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

(1) See Independent Linearity, page 3.

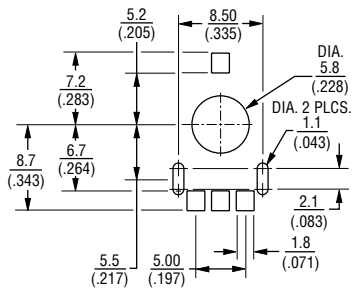
Product Dimensions

3382G

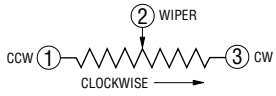


NOTE: ALL TERMINATIONS TO BE COPLANAR WITHIN 0.1 (0.001)

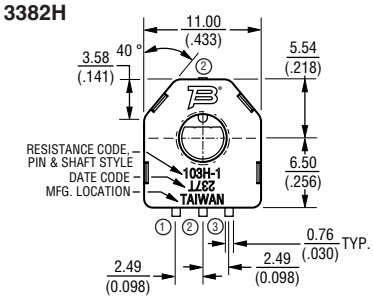
Recommended Land Pattern

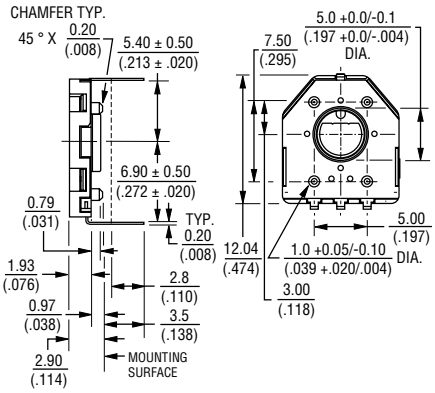


DIMENSIONS: MM / (INCHES)

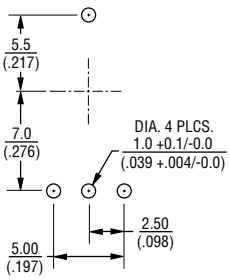


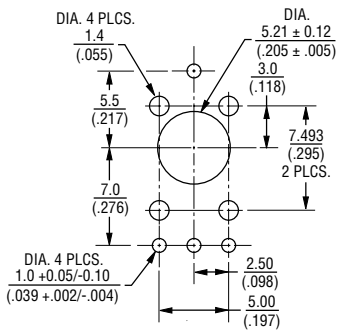
3382H





Recommended Land Patterns





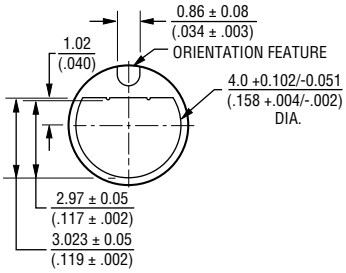
TOLERANCES: ±0.30 / ±(.012) UNLESS OTHERWISE NOTED

WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

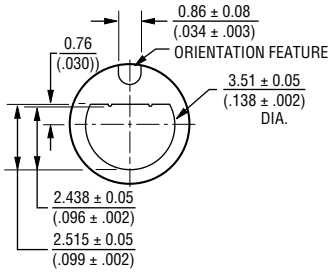
*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

Rotor Dimensions

-1

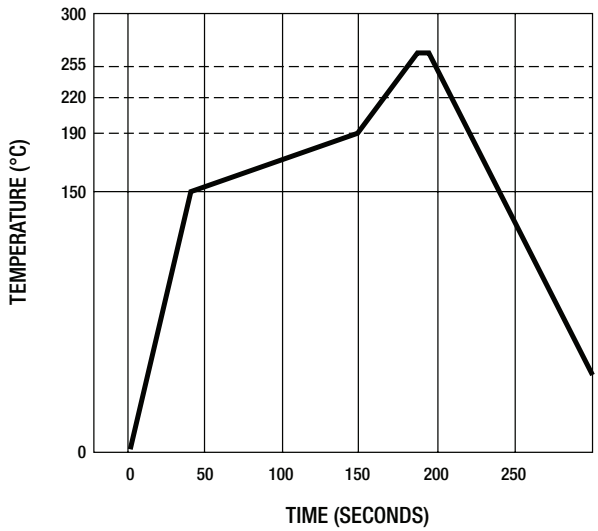


-2



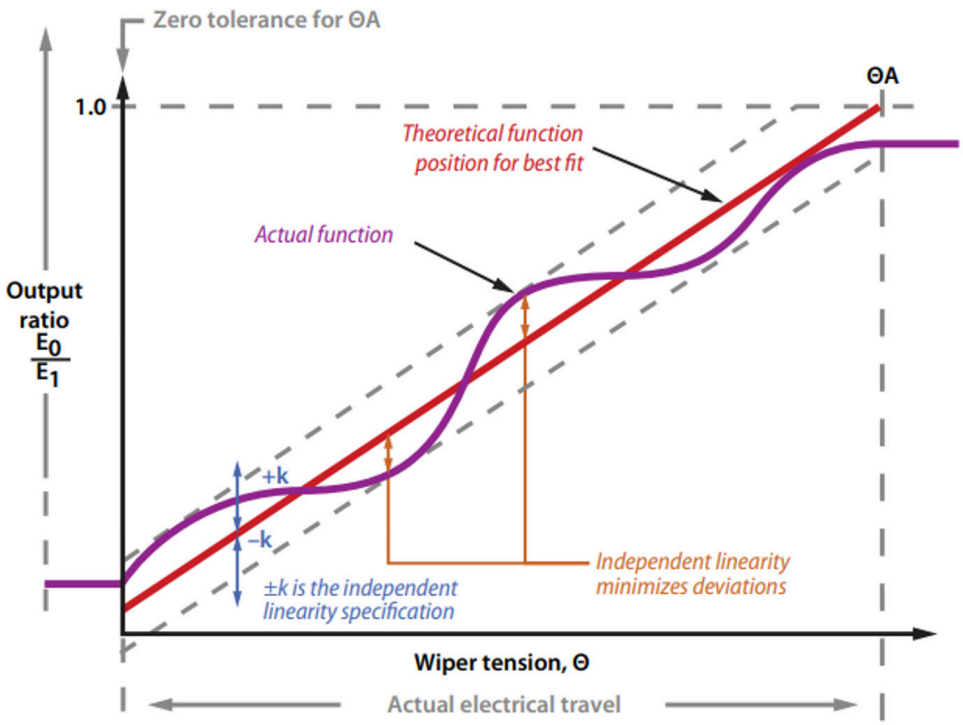
Processing Information

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



Independent Linearity

Independent linearity is the maximum permissible deviation of the actual output curve from a reference line. The slope and position of this reference line are chosen to minimize deviations over all or a portion of the actual electrical travel. The reference line is placed for best straight-line fit through the actual output curve. Please reference the illustration below.



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

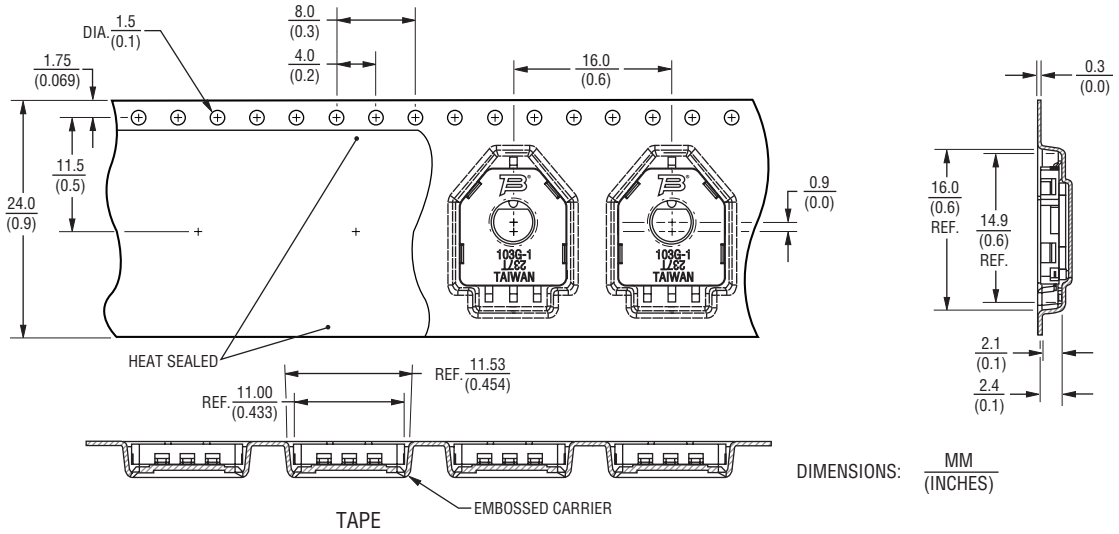
Resistance Code

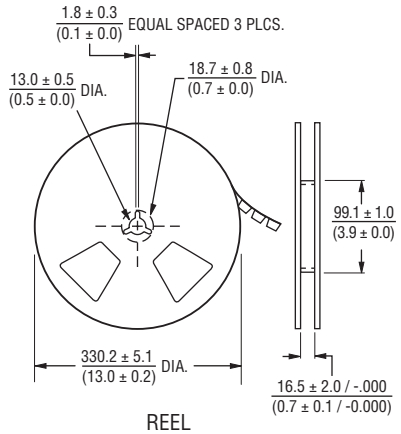
Packaging Designator
- G = 1000 pcs./13 " Reel (G Style)
- Blank = 50 pcs./Tube (H Style)

Standard Resistance Table

Resistance (Ohms)	Resistance Code
2,500	252
5,000	502
10,000	103
20,000	203
25,000	253
50,000	503
100,000	104

Packaging Specifications





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