

BOURNS®

Features

- Surface mount 2 mm Square / Single-turn / Sealed
- Compatible with surface mount manufacturing processes
- Miniature design for flexibility
- RoHS compliant*
- For trimmer applications/processing guidelines, [click here](#)

3312 - 2 mm SMD Trimpot® Trimming Potentiometer

Electrical Characteristics

Standard Resistance Range

..... 10 ohms to 2 megohms
(see standard resistance table)

Resistance Tolerance ±20 % std.

End Resistance 1 % or 2 ohms max.
(whichever is greater)

Contact Resistance Variation

..... 5 % or 3 ohms max.
(whichever is greater)

Adjustability

Voltage Divider ±0.4 %

Rheostat ±0.8 %

Resolution Essentially infinite

Insulation Resistance 500 VDC
100 megohms min.

Dielectric Strength

Sea Level 500 VAC

70,000 Feet 350 VAC

Adjustment Angle 255 ° nom.

Environmental Characteristics

Power Rating (50 volts max.)

70 °C 0.1 watt

125 °C 0 watt

Operating Temperature Range

..... -55 °C to +125 °C

Temperature Coefficient ... ±100 ppm/°C

Humidity MIL-STD-202 Method 106

TRS ±5 %; IR 10 megohms

Vibration 20 G TRS ±1 %; VRS ±1 %

Shock 100 G TRS ±1 %; VRS ±1 %

Load Life @ 70 °C Rated Power

..... TRS ±3 %

Rotational Life 25 cycles TRS ±3 %

Thermal Shock 5 cycles

TRS ±2 %; VRS ±4 %

Physical Characteristics

Mechanical Stop 285 ° nom.

Torque 0.7 oz-in. max

Stop Strength 0.7 oz-in. nom.

Weight Approximately 0.0321 g

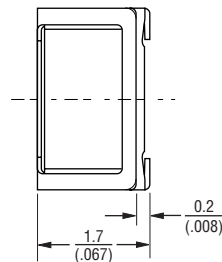
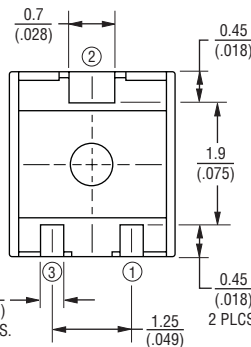
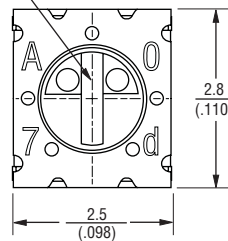
Marking

..... Resistance code and date code

Standard Packaging 500 pcs./7 " reel

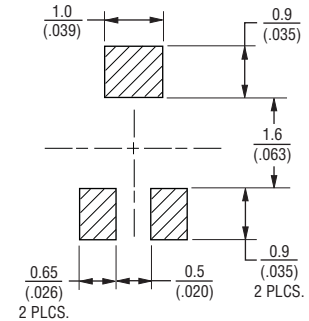
Product Dimensions

ELECTRICAL ADJUSTMENT SLOT
0.35 WIDE X 1.5 LONG X 0.3 DEEP
(.014) (.059) (.012)



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$
TOLERANCE: $\frac{\pm 0.30}{(\pm .012)}$

Recommended Land Pattern



Standard Resistance Table

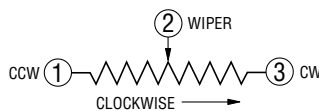
Resistance (Ohms)	Part Marking Code	Resistance Code
10	A1	100
20	U1	200
50	V1	500
100	A2	101
200	U2	201
500	V2	501
1,000	A3	102
2,000	U3	202
5,000	V3	502
10,000	A4	103
20,000	U4	203
50,000	V4	503
100,000	A5	104
200,000	U5	204
500,000	V5	504
1,000,000	A6	105
2,000,000	U6	205

Popular values listed in boldface. Consult factory for special resistances.

How To Order

3312 J - 1 - 502 E

Model _____
Style _____
Standard Product Indicator _____
-1 = Standard Product
Resistance Code _____
Embossed Tape Designator _____
E = 500 pcs./7 " Reel



*RoHS Directive 2002/95/EC Jan 27 2003 including Annex.

Specifications are subject to change without notice.

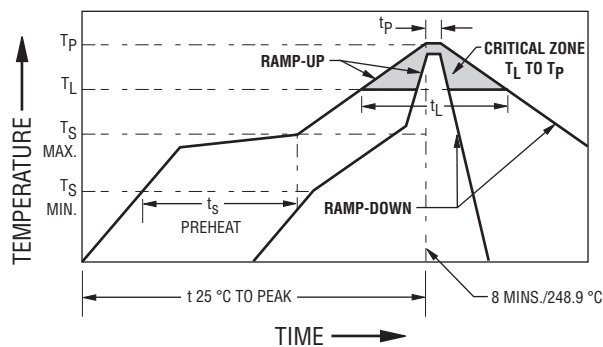
Customers should verify actual device performance in their specific applications.

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Processing Information

Process Description	Materials	Temperature	Time Interval
1. Apply solder paste to test board (8 - 10 mil thick)	<ul style="list-style-type: none"> • Sn 96.5/Ag 3.0/Cu 0.5 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 (T _S)		150 °C to 190 °C	90 ±30 seconds
5. Time above liquidus (T _L)		220 °C	60-90 seconds
6. Peak temperature (T _P)			250 °C +0 °/-5 ° 10-20 sec. within 5 °C of peak
7. Ramp down		Room temperature	3 °C ±0.5 °C/second
8. Cleaning water clean profile	High pressure deionized water 65 PSI maximum	72 °F to 160 °F (22 °C to 71 °C)	As required

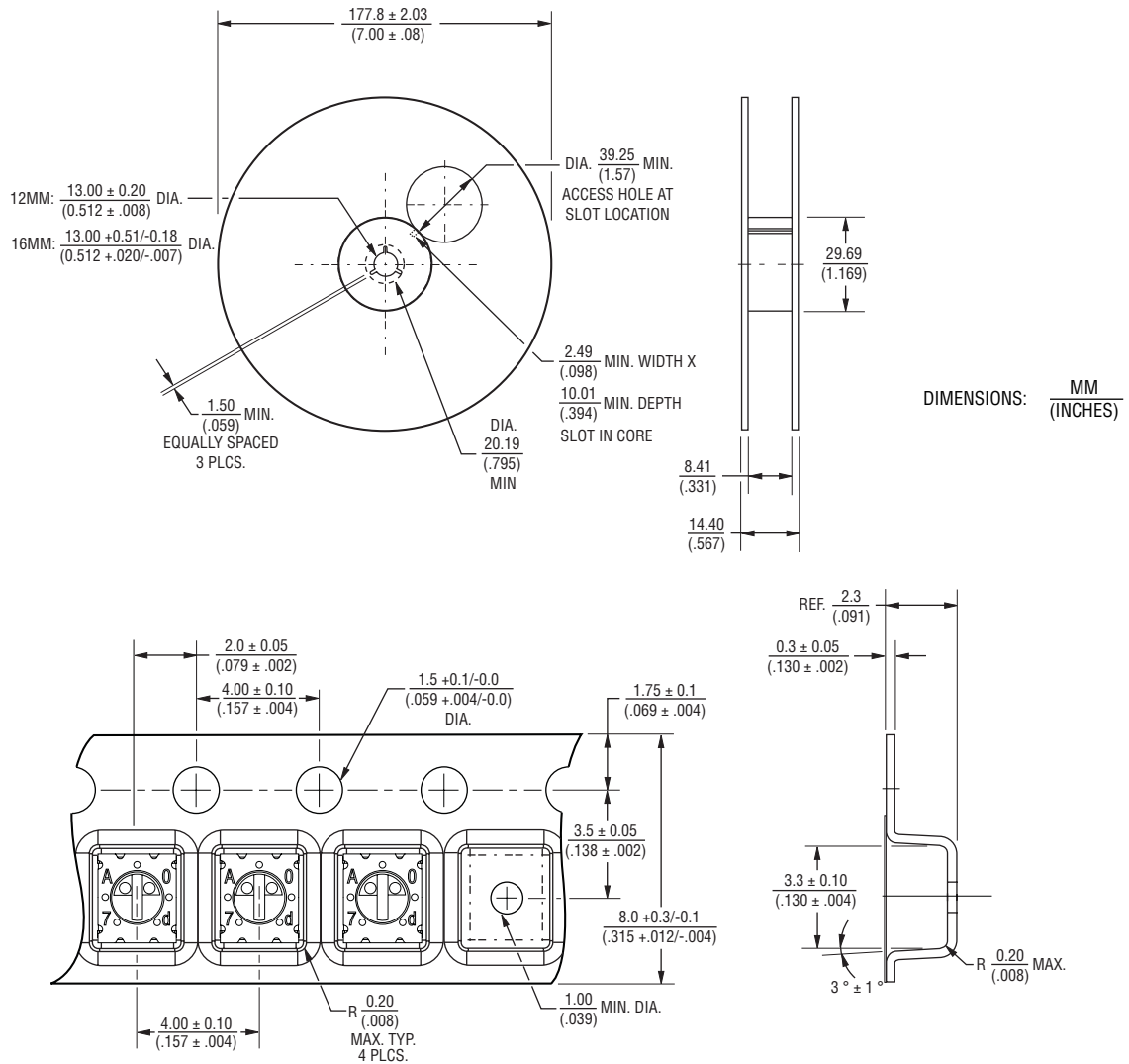


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Packaging Specifications



REV. 08/10

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