

## Features

- Recommended for reflow soldering
- Rotor design compatible with pick and place and automatic adjustment equipment
- 3 mm size meets EIA/EIAJ standard trimmer footprint
- RoHS compliant\* - see [processing information](#) on RoHS compliant surface mount trimmers
- For trimmer applications/processing guidelines, [click here](#)

## TC33 - 3 mm SMD Trimpot® Trimming Potentiometer

### Electrical Characteristics

Standard Resistance Range  
 ..... 100 ohms to 1 megohm  
 (see standard resistance table)  
 Resistance Tolerance ..... ±25 % std.  
 Absolute Minimum Resistance  
 ≤ 1 K Ohms ..... 20 ohms max.  
 > 1 K Ohms ..... 2 % max. of TR  
 Contact Resistance Variation ..... 5 % max.  
 Resolution ..... Essentially infinite  
 Adjustment Angle ..... 200 ° min.

### Environmental Characteristics

Power Rating (50 VDC max.)  
 70 °C ..... 0.1 watt  
 Temperature Range ..... -40 °C to +100 °C  
 Temperature Coefficient ..... ±250 ppm/°C  
 Humidity ..... -40 °C, 95 %RH TRS max.  
 Load Life  
 ..... @ 70 °C rated power 1000 hours  
 TRS ±5 %  
 Rotational Cycling .. 20 cycles, TRS ±5 %

### Physical Characteristics

Torque ..... 0.98-11.76 mN-m max.  
 Mechanical Angle\*  
 ..... Continuous; 270 ° ±20 °  
 Marking ..... Part marking code  
 Standard Packaging ... 2000 pcs./7 " reel  
 Adjustment Tool ..... H-90

\*The lower limit of the rotational angle standard is 250 °, but there is non-valid rotational range of 10 % or less on each end.

Aqueous cleaning not recommended.

### How To Order

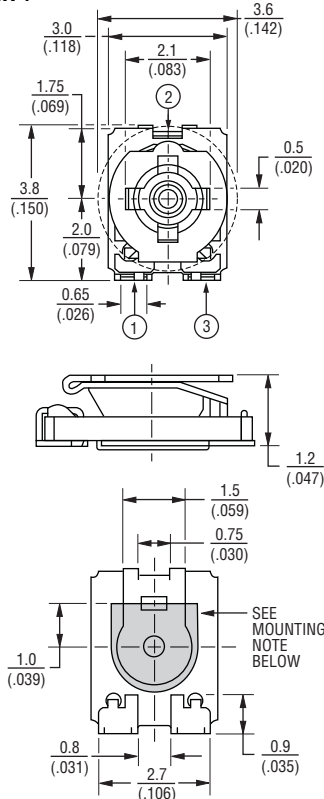
**TC33 B - 1 - 103 E**

Model \_\_\_\_\_  
 Style \_\_\_\_\_  
 Standard Product Indicator  
 TC33B:  
 -1 = Single Slot Bottom Adjust  
 TC33X:  
 -1 = Continuous Rotation  
 -2 = Rotational Stop  
 Resistance Code \_\_\_\_\_  
 Embossed Tape Designator \_\_\_\_\_  
 E = 2000 pcs./7 " Reel (B Style)  
 E = 2500 pcs./7 " Reel (X Style)  
 G = 9000 pcs./13 " Reel (X Style)

\*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.

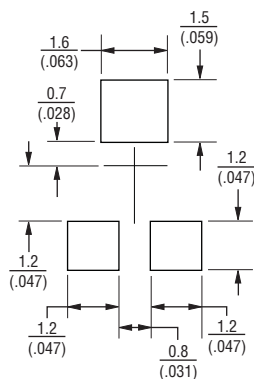
### Product Dimensions

TC33X-1

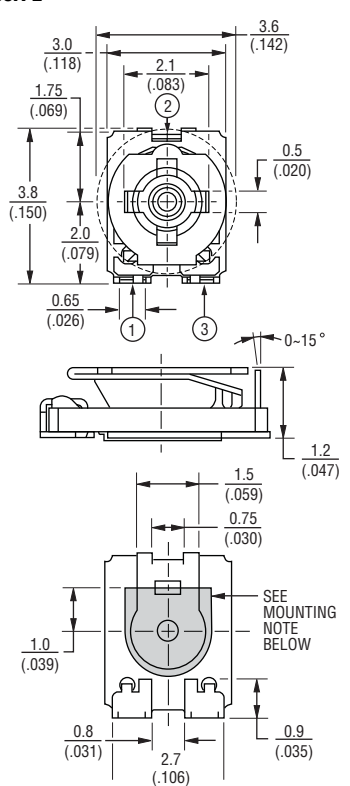


Mounting Note:  
 The gray area can be used to apply cement to hold the unit in place during board processing, if required.

### Recommended Land Pattern

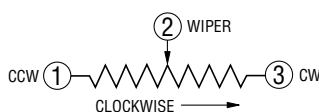
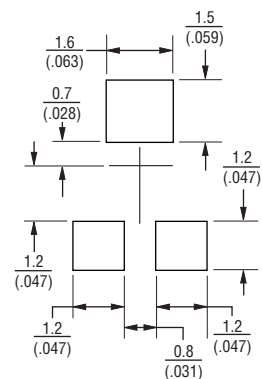


TC33X-2



Mounting Note:  
 The gray area can be used to apply cement to hold the unit in place during board processing, if required.

### Recommended Land Pattern



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

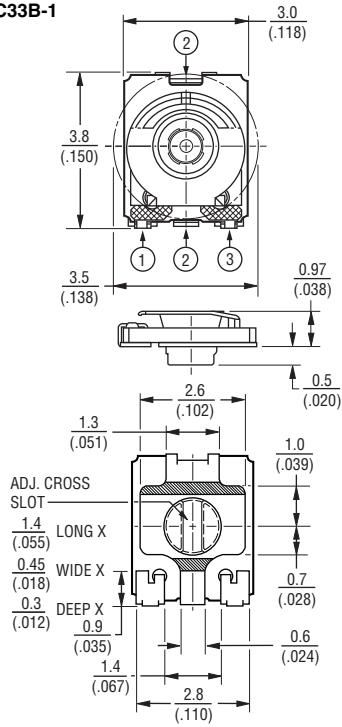
TOLERANCES: ±  $\frac{0.3}{(.010)}$  EXCEPT WHERE NOTED

# TC33 - 3 mm SMD Trimpot® Trimming Potentiometer

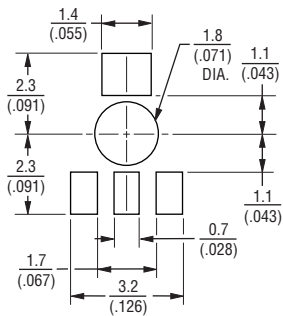
# BOURNS®

## Product Dimensions (Continued)

TC33B-1



## Recommended Land Pattern



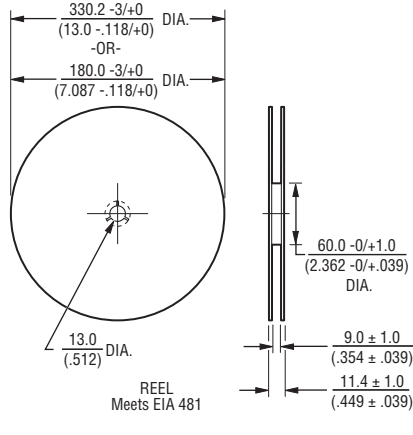
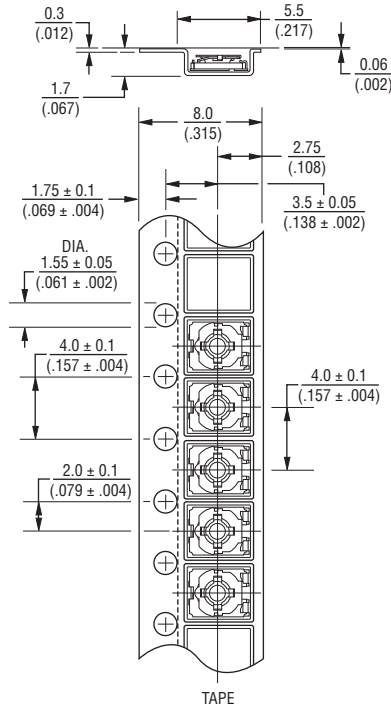
## Standard Resistance Table

Resistance (Ohms)	Resistance Code
<b>100</b>	<b>101</b>
<b>200</b>	<b>201</b>
<b>500</b>	<b>501</b>
<b>1,000</b>	<b>102</b>
<b>2,000</b>	<b>202</b>
<b>5,000</b>	<b>502</b>
<b>10,000</b>	<b>103</b>
<b>20,000</b>	<b>203</b>
<b>50,000</b>	<b>503</b>
<b>100,000</b>	<b>104</b>
200,000	204
500,000	504
1,000,000	105

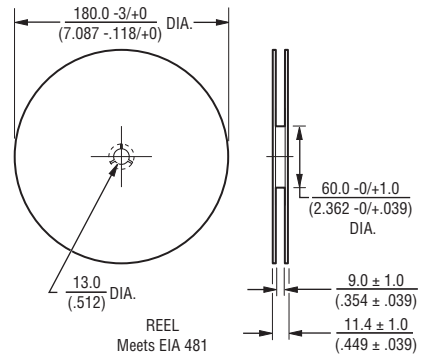
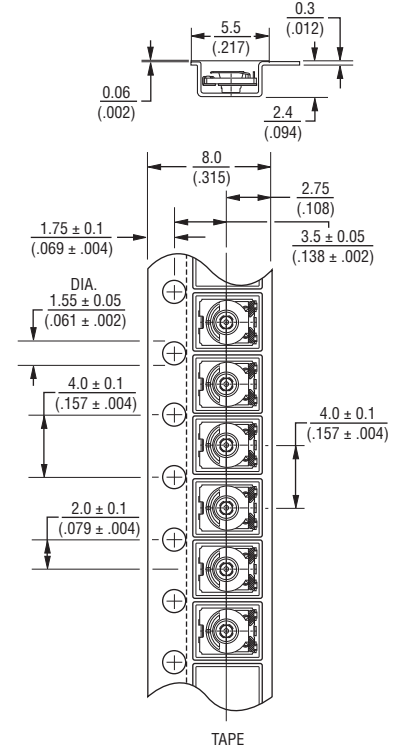
Popular distribution resistance values listed in boldface.

## Packaging Specifications

TC33X-1, -2



TC33B-1



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

TOLERANCES:  $\pm \frac{0.3}{(.012)}$  EXCEPT WHERE NOTED

REV. 04/14

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