

## 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
- Available as bottom adjust only
- RoHS compliant\* - see [processing information](#) on lead free surface mount trimmers

# TC33 - 3 mm SMD 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. .... ±5 %  
 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.

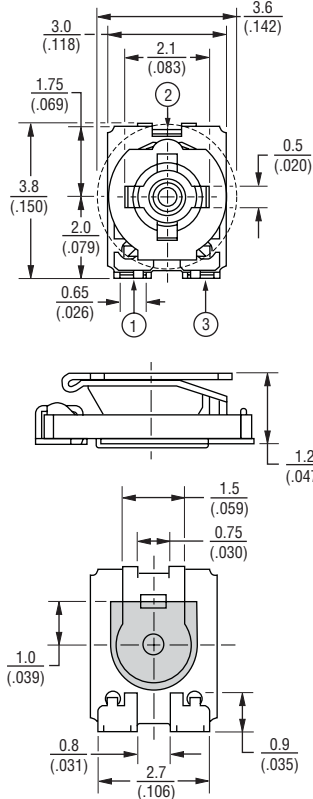
## How To Order

**TC33 B - 1 - 103 E**

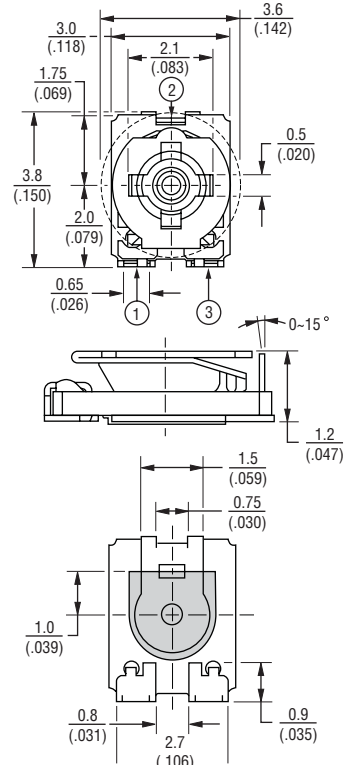
Model \_\_\_\_\_  
 Style \_\_\_\_\_  
 Standard Product Indicator \_\_\_\_\_  
 TC33B:  
 -1 = Single Slot Bottom Adjust  
 TC33X:  
 -1 = Continuous Rotation  
 -2 = Rotational Stop  
 Resistance Code \_\_\_\_\_  
 Embossed Tape Designator \_\_\_\_\_  
 E = 2000 pcs./7 " Reel (B Style)  
 X = 2500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

## Product Dimensions

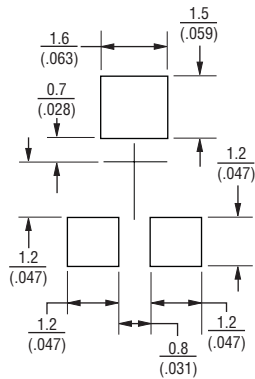
TC33X-1



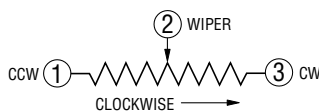
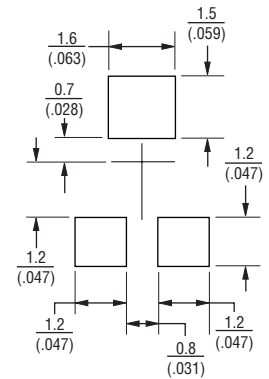
TC33X-2



## Recommended Land Pattern



## Recommended Land Pattern



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$   
 TOLERANCES: ±  $\frac{0.3}{(0.010)}$  EXCEPT WHERE NOTED

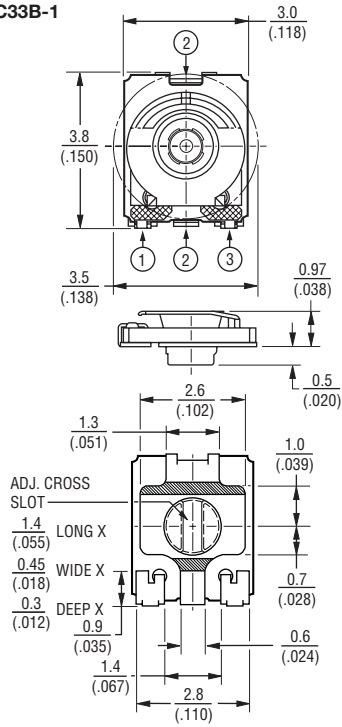
\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex.  
 Specifications are subject to change without notice.  
 Customers should verify actual device performance in their specific applications

# TC33 - 3 mm SMD Trimming Potentiometer

**BOURNS®**

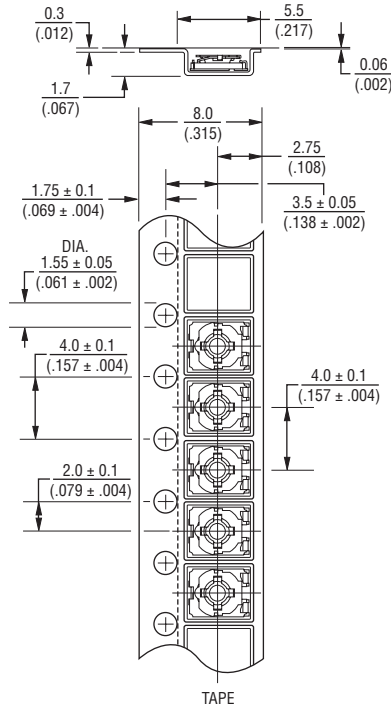
## Product Dimensions (Continued)

TC33B-1

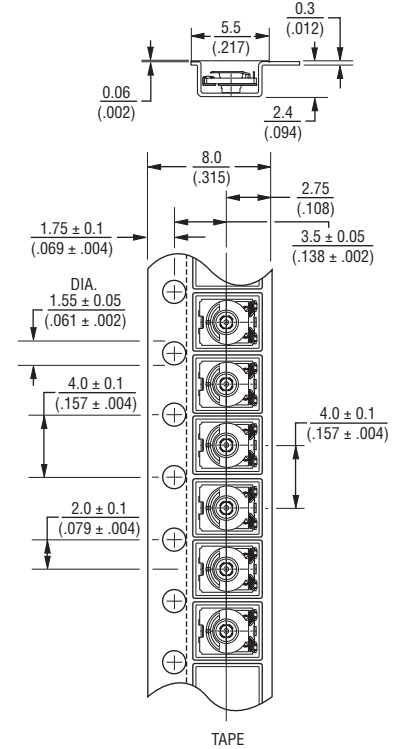


## Packaging Specifications

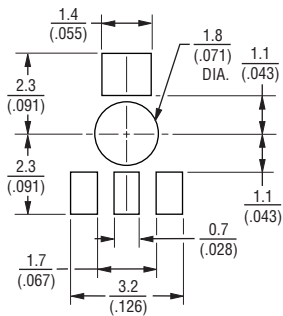
TC33X-1, -2



TC33B-1



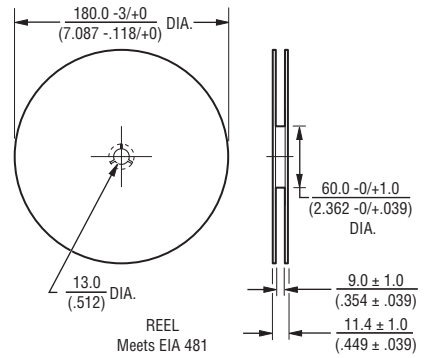
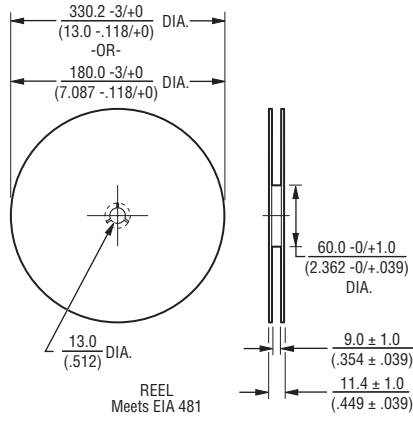
## Recommended Land Pattern



## 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.



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

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