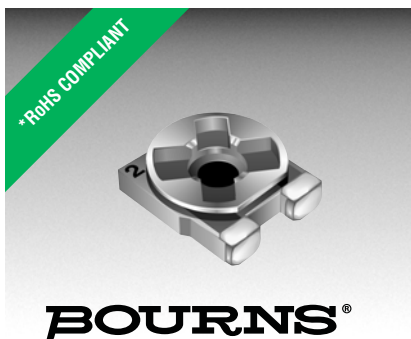




## Features

- 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. .... ±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.

Aqueous cleaning not recommended.

### How To Order

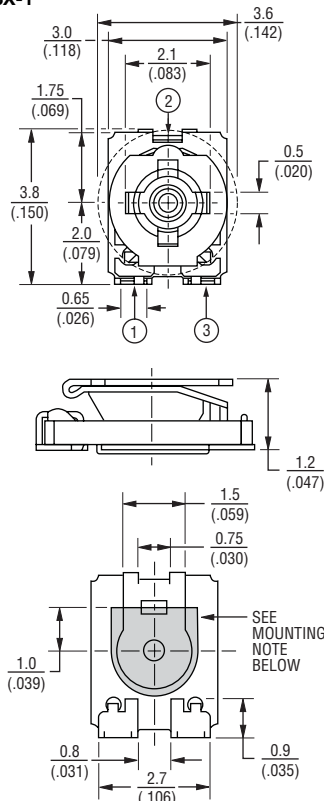
**TC33 B - 1 - 103 E**

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

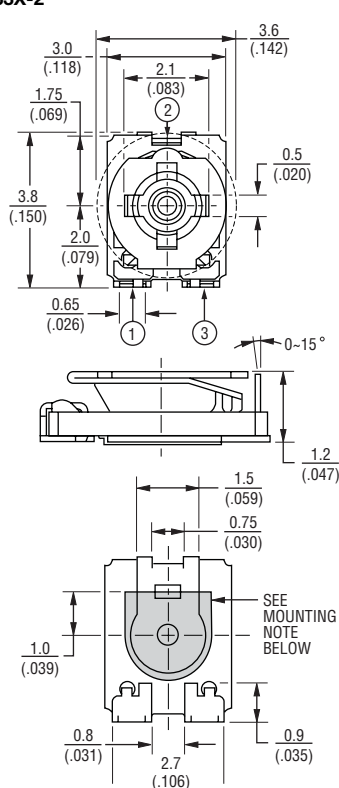
### Product Dimensions

TC33X-1



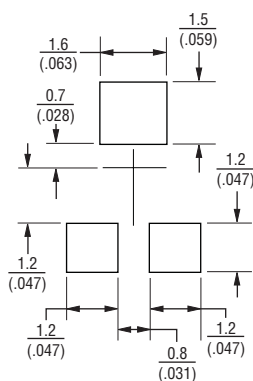
Mounting Note:  
The gray area can be used to apply cement to hold the unit in place during board processing, if required.

TC33X-2

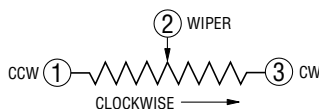
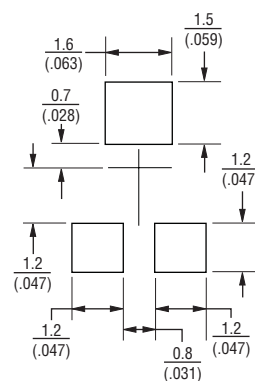


Mounting Note:  
The gray area can be used to apply cement to hold the unit in place during board processing, if required.

### Recommended Land Pattern



### Recommended Land Pattern



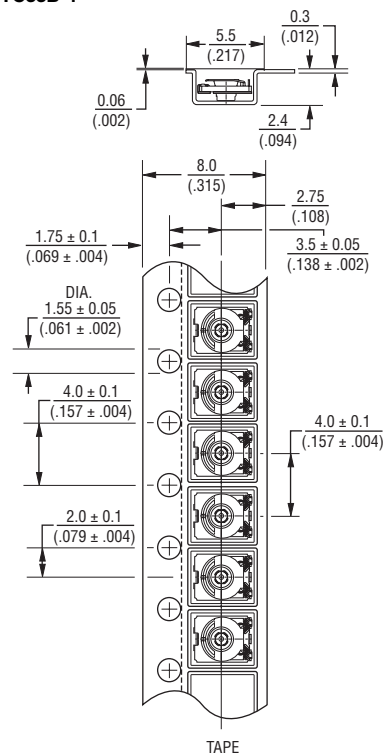
DIMENSIONS:  $\frac{\text{MM}}{(\text{INCHES})}$

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

**BOURNS®**

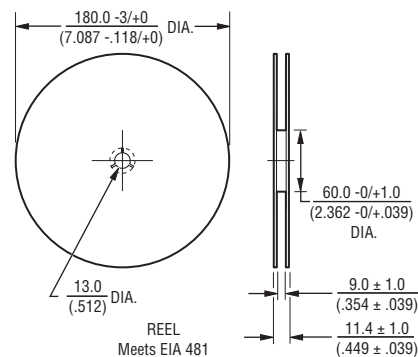
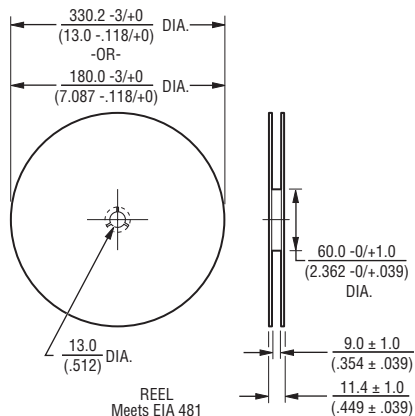
## Packaging Specifications

TC33B-1



Technical drawing of a mechanical part with dimensions in inches and parentheses for decimal equivalents:

- Top horizontal dimension: 1.4 (.055)
- Top vertical dimension: 2.3 (.091)
- Top right vertical dimension: 1.1 (.043)
- Top right horizontal dimension: 1.8 (.071) DIA.
- Bottom horizontal dimension: 1.7 (.067)
- Bottom vertical dimension: 2.3 (.091)
- Bottom right vertical dimension: 1.1 (.043)
- Bottom right horizontal dimension: 0.7 (.028)
- Bottom center horizontal dimension: 3.2 (.126)



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

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

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

“Trimpot” is a registered trademark of Bourns, Inc.  
Specifications are subject to change without notice.  
Customers should verify actual device performance in their specific applications.