



## 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 .....  $\pm 25\%$  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 .....  $\pm 250$  ppm/°C  
Humidity ..... +40 °C, 95 %RH  
TRS max. ....  $\pm 5\%$   
Load Life  
..... @ 70 °C rated power 1000 hours  
TRS  $\pm 5\%$

Rotational Cycling  
..... 20 cycles, TRS  $\pm 10\%$

### Physical Characteristics

Torque ..... 0.98-11.76 mN-m max.  
Mechanical Angle ..... Continuous  
Marking ..... Part marking code  
Standard Packaging ... 2000 pcs./7 " reel  
Adjustment Tool ..... H-90

Aqueous cleaning not recommended.

### How To Order

**TC33 X - 1 - 103 E**

Model \_\_\_\_\_  
Style \_\_\_\_\_  
Standard Product Indicator  
-1 = Continuous Rotation  
-2 = Rotational Stop  
Resistance Code \_\_\_\_\_  
Embossed Tape Designator  
E = 2500 pcs./7 " Reel  
G = 9000 pcs./13 " Reel

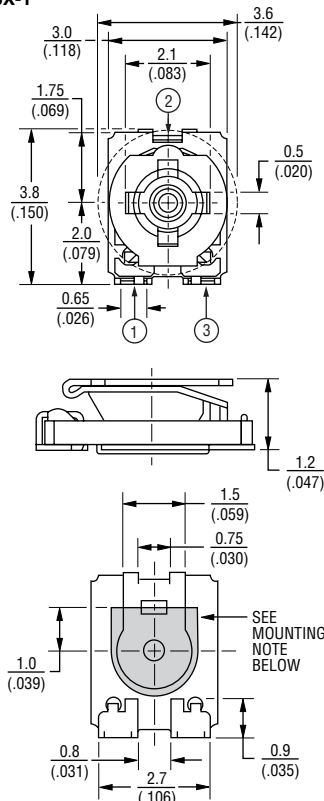
Tape and reel material meets Antistatic ANSI/  
ESD 5541-2003 packaging standards.

\*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.

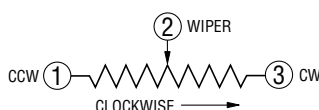
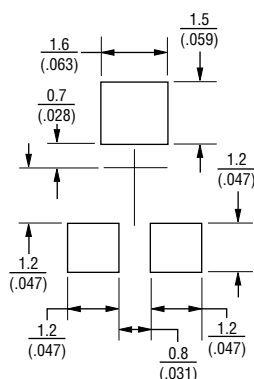
### Product Dimensions

TC33X-1

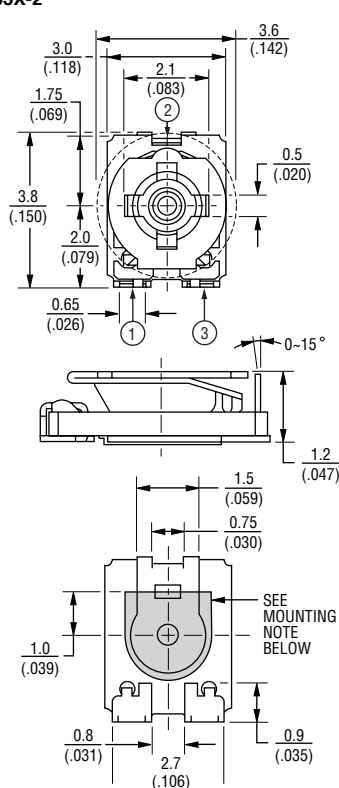


Mounting Note:  
The gray area can be used to apply cement to hold the unit  
in place during board processing, if required.

### Recommended Land Pattern

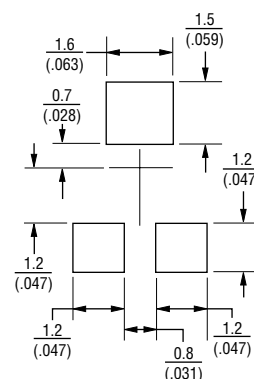


TC33X-2



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

# TC33 - 3 mm SMD Trimpot® Trimming Potentiometer

**BOURNS®**

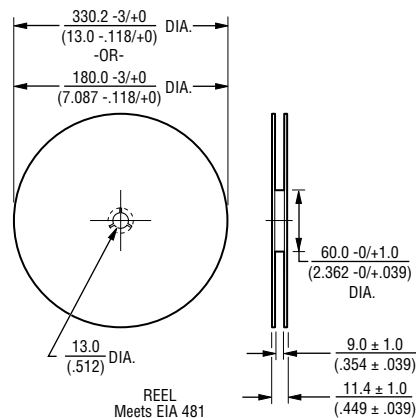
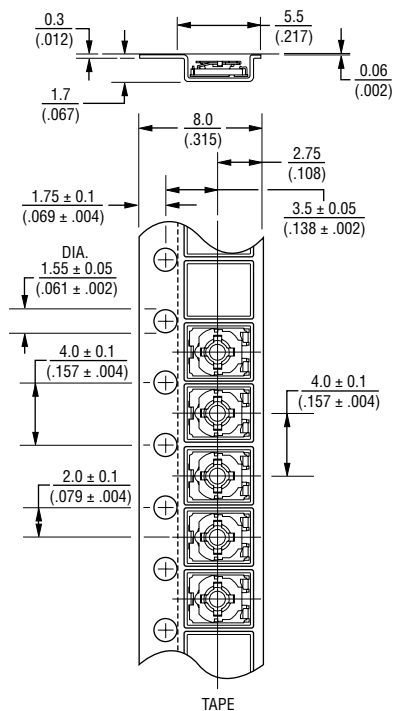
Standard Resistance Table

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



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

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

REV. 08/16

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

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Bourns:

<a href="#">TC33X-2-104G</a>	<a href="#">TC33X-2-102G</a>	<a href="#">TC33X-2-102E</a>	<a href="#">TC33X-2-104E</a>	<a href="#">TC33X-2-502E</a>	<a href="#">TC33X-2-502G</a>	<a href="#">TC33X-2-504E</a>
<a href="#">TC33X-2-503E</a>	<a href="#">TC33X-2-504G</a>	<a href="#">TC33X-2-503G</a>	<a href="#">TC33X-2-501E</a>	<a href="#">TC33X-2-501G</a>	<a href="#">TC33X-2-202E</a>	<a href="#">TC33X-2-203G</a>
<a href="#">TC33X-2-203E</a>	<a href="#">TC33X-2-204G</a>	<a href="#">TC33X-2-201E</a>	<a href="#">TC33X-2-201G</a>	<a href="#">TC33X-2-204E</a>	<a href="#">TC33X-2-202G</a>	<a href="#">TC33X-2-302G</a>
<a href="#">TC33X-2-304E</a>	<a href="#">TC33X-2-304G</a>	<a href="#">TC33X-2-302E</a>	<a href="#">TC33X-2-301E</a>	<a href="#">TC33X-2-301G</a>	<a href="#">TC33X-2-303G</a>	<a href="#">TC33X-2-303E</a>
<a href="#">TC33X-2-105E</a>	<a href="#">TC33X-2-105G</a>	<a href="#">TC33X-2-101G</a>	<a href="#">TC33X-2-101E</a>	<a href="#">TC33X-2-103G</a>	<a href="#">TC33X-2-103E</a>	<a href="#">TC33X-2-153E</a>
<a href="#">TC33X-1-103E</a>	<a href="#">TC33X-1-501E</a>	<a href="#">TC33B-1-104E</a>	<a href="#">TC33X-1-504E</a>	<a href="#">TC33B-1-202E</a>	<a href="#">TC33X-1-101E</a>	<a href="#">TC33B-1-503E</a>
<a href="#">TC33X-1-204E</a>	<a href="#">TC33X-1-201E</a>	<a href="#">TC33X-1-105E</a>	<a href="#">TC33X-1-202E</a>	<a href="#">TC33B-1-203E</a>	<a href="#">TC33X-2-474E</a>	<a href="#">TC33X-1-102E</a>
<a href="#">TC33X-1-503E</a>	<a href="#">TC33B-1-504E</a>	<a href="#">TC33B-1-102E</a>	<a href="#">TC33X-1-104E</a>	<a href="#">TC33X-1-502E</a>	<a href="#">TC33X-2-333E</a>	<a href="#">TC33B-1-204E</a>
<a href="#">TC33X-1-203E</a>						