

\*RoHS COMPLIANT



**BOURNS®**

### 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 ..... ±5 %  
 @ 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



### 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

\*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 Trimpot® Trimming Potentiometer

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## Product Dimensions (Continued)

TC33B-1



## Packaging Specifications

TC33X-1, -2



TC33B-1



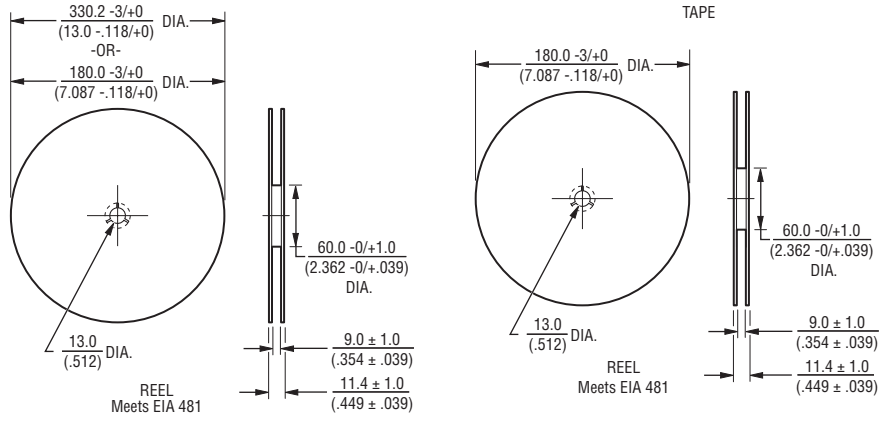
## Recommended Land Pattern



## 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

REV. 06/11

"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.