

### 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\*
- 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 ..... 270 ° ± 20 °

### Environmental Characteristics

Power Rating (50 VDC max.)  
 70 °C ..... 0.15 watt  
 Temperature Range ..... -40 °C to +100 °C  
 Temperature Coefficient ..... ±250 ppm/°C  
 Humidity ..... +40 °C ± 2 °C, 90-95 % RH  
 TRS max. .... ±5 %  
 Load Life  
 ..... @ 70 °C rated power 1000 hours  
 TRS ±5 %  
 Rotational Cycling  
 ..... 20 cycles, TRS ±10 %

### Physical Characteristics

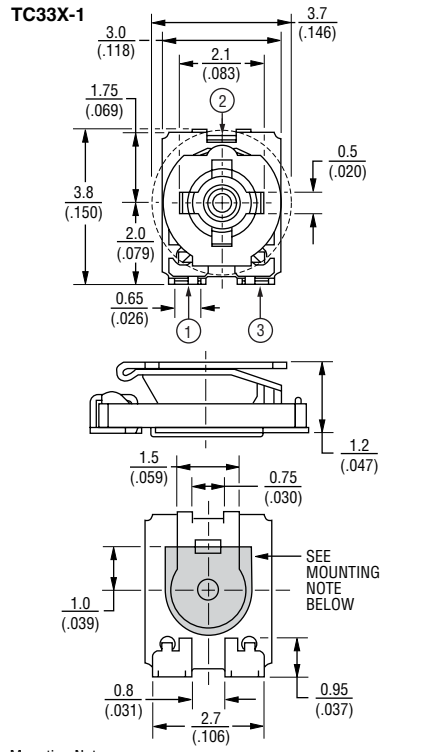
Torque ..... 0.98-11.76 mN-m max.  
 Mechanical Angle ..... Continuous rotation for Model TC33X-1  
 Marking ..... Part marking code  
 Standard Packaging ... 2500 pcs./7 " reel  
 Adjustment Tool ..... See note<sup>(1)</sup>  
 Pushing Static Force ..... <4.9 N

<sup>(1)</sup> Use an adjustment tool with the following recommended measurements:  
 1.7 mm (.067 in.) cross slot  
 The recommended adjustment tool size is not available from Bourns. Please contact a Bourns representative for further information.

### Cautions

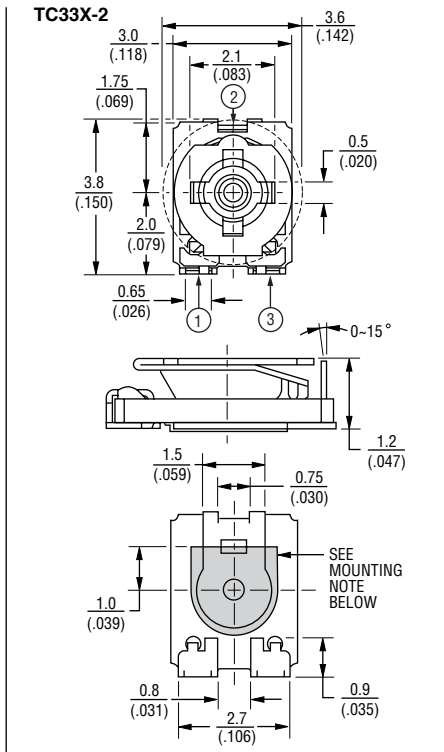
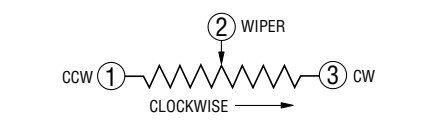
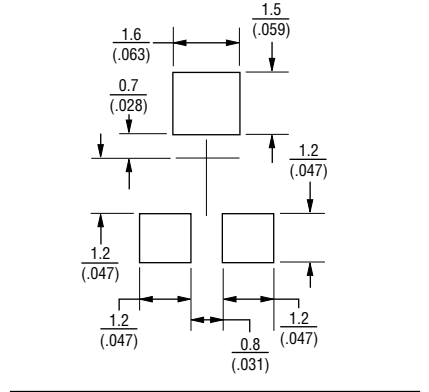
- Aqueous cleaning not recommended
- Flow soldering not recommended; use reflow soldering
- Model TC33 is not designed to be used with flux - use care with flux when soldering
- It is not recommended to adjust the Model TC33X-1 past the effective rotary angle.
- If an excessive force is applied to the sliding part (the operating shaft) when adjusting the resistance value, the sliding part may be deformed or broken.

### Product Dimensions



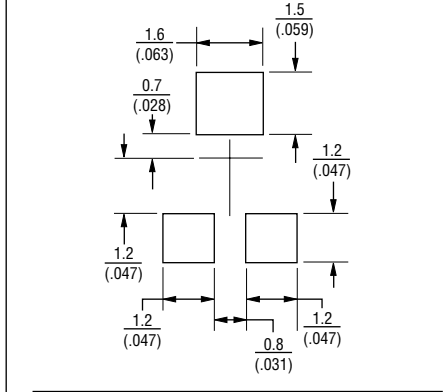
Mounting Note:  
 The gray area can be used to apply cement to hold the unit in place during board processing, if required.

### Recommended Land Pattern

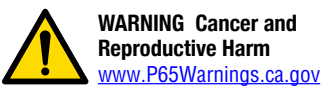


Mounting Note:  
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### Recommended Land Pattern



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



\*RoHS Directive 2015/863, Mar. 31, 2015 and Annex  
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