



## Features

- Single-turn cermet/open-frame
- 2 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](#)

## TC42 - 2 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  
 $\leq 1\text{K Ohms}$  ..... 20 ohms max.  
 $> 1\text{K Ohms}$  ..... 2 % max. of TR  
 Contact Resistance Variation ..... 5 % max.  
 Resolution ..... Essentially infinite  
 Adjustment Angle .....  $240^\circ \pm 20^\circ$

### Environmental Characteristics

Power Rating (50 VDC max.)  
 $70^\circ\text{C}$  ..... 0.1 watt  
 Temperature Range .....  $-40^\circ\text{C}$  to  $+100^\circ\text{C}$   
 Temperature Coefficient .....  $\pm 250\text{ ppm}/^\circ\text{C}$   
 Humidity ..... 95 % RH  
 TRS Max. ....  $\pm 5\%$   
 Load Life.... @  $70^\circ\text{C}$  rated power 1000 hrs.  
 TRS  $\pm 5\%$   
 Rotational Cycling....20 cycles, TRS  $\pm 10\%$   
 Moisture Sensitivity Level ..... N/A  
 ESD Classification (HBM) ..... 2

### Physical Characteristics

Torque ..... 0.49 - 7.84 mN-m max.  
 Mechanical Angle ..... Continuous rotation  
 Marking ..... Part marking code  
 Standard Packaging ..... 3000 pcs./7 " reel  
 Adjustment Tool ..... See note<sup>(1)</sup>

<sup>(1)</sup> Use an adjustment tool with the following recommended measurements:

- 1.2 mm (.047 in.) blade slot
- 0.2 mm (.008 in.) slot width

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 TC42 is not designed to be used with flux - use care with flux when soldering



**WARNING**  
**Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

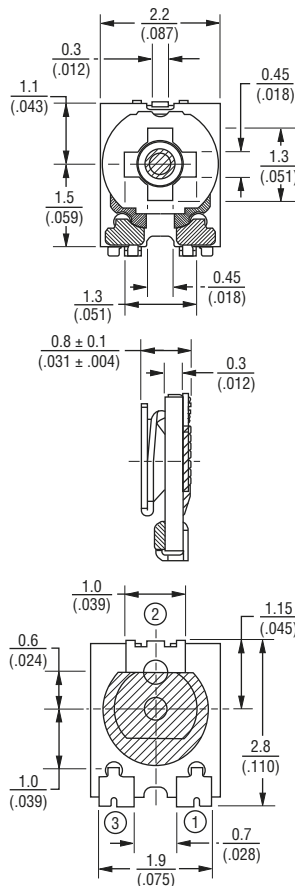
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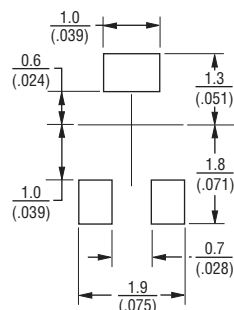
Users should verify actual device performance in their specific applications.

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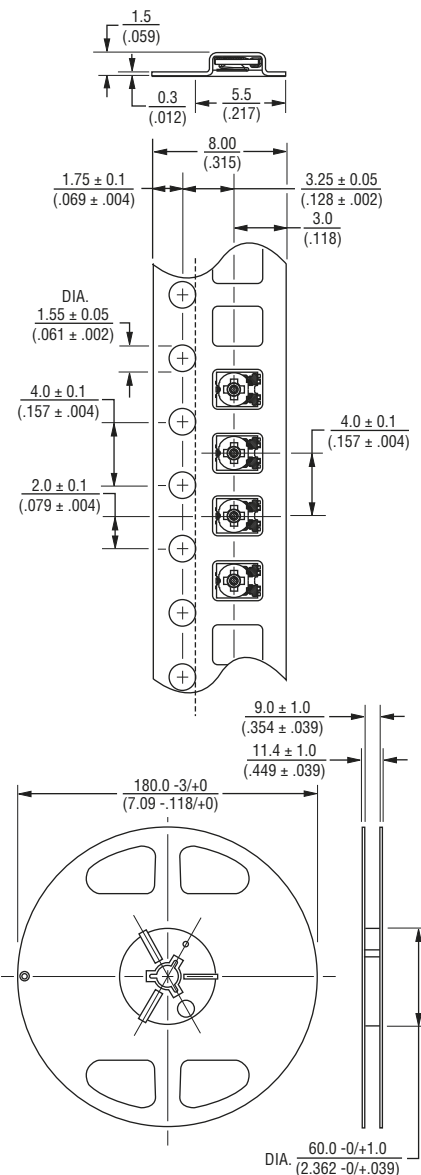
### Product Dimensions



### Recommended Land Pattern

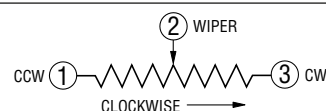


### Packaging Specifications



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

TOLERANCES:  $\pm \frac{0.3}{(0.01)}$  EXCEPT WHERE NOTED



## TC42 - 2 mm SMD Trimpot® Trimming Potentiometer

**BOURNS®**

### How To Order

Model **TC42** X - 2 - 103 E  
Style \_\_\_\_\_  
Standard Product Indicator \_\_\_\_\_  
-2 = Cross Slot Rotor  
Resistance Code \_\_\_\_\_  
Embossed Tape Designator \_\_\_\_\_  
E = 3000 pcs./7 " Reel (Standard)  
Tape and reel material meets Antistatic ANSI/  
ESD 5541-2003 packaging standards.

### 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>
<b>200,000</b>	<b>204</b>
<b>500,000</b>	<b>504</b>
<b>1,000,000</b>	<b>105</b>

Popular distribution values listed in boldface.

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