

BOURNS®

Features

- Single-turn cermet/open-frame
- 2 mm size meets EIA/EIAJ standard trimmer footprint
- RoHS compliant*
- For trimmer applications/processing guidelines, [click here](#)

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TC42 – 2 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
 ≤ 1K Ohms 20 ohms max.
 > 1K Ohms 2 % max. of TR
 Contact Resistance Variation 5 % max.
 Resolution Essentially infinite
 Adjustment Angle 240 ° ±20 °

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 ±2 °C, 90-95 % RH
 TRS Max ±5 %
 Load Life @70 °C rated power 1000 hrs.
 TRS ±5 %
 Rotational Cycling 20 cycles, TRS ±10 %
 Moisture Sensitivity Level N/A

Physical Characteristics

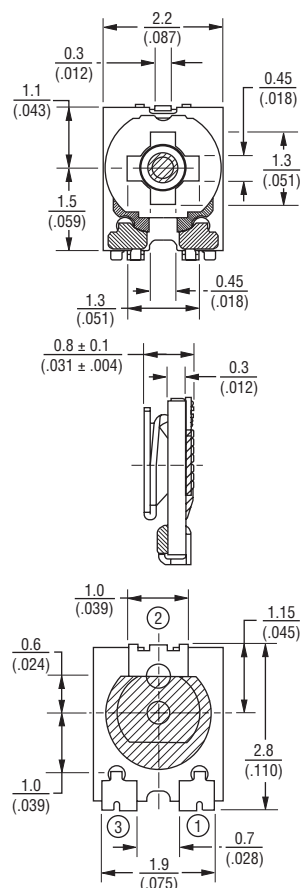
Torque 0.49 - 7.84 mN-m max.
 Mechanical Angle Continuous rotation
 Marking Part marking code
 Standard Packaging 3000 pcs./7" reel
 Adjustment Tool See note⁽¹⁾
 Pushing Static Force <4.9 N

⁽¹⁾ 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.

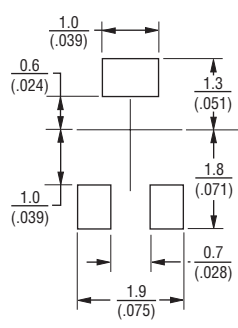
Cautions

- 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
- It is not recommended to adjust the Model TC42X-2 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.

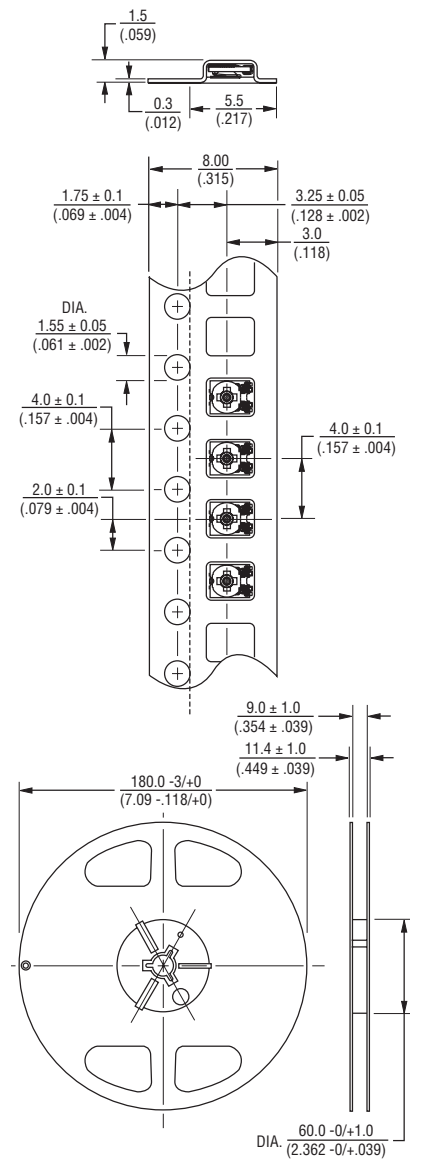
Product Dimensions



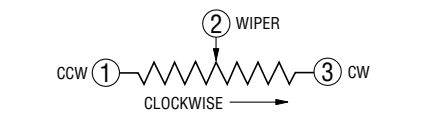
Recommended Land Pattern



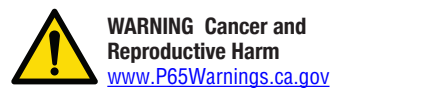
Packaging Specifications



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$
 TOLERANCES: ± $\frac{0.3}{(0.01)}$ EXCEPT WHERE NOTED



*RoHS Directive 2015/863, Mar. 31, 2015 and Annex
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TC42 – 2 mm SMD Trimpot® Trimming Potentiometer



How To Order

TC42 X - 2 - 103 E

Model _____
 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.

Recommended Storage Conditions

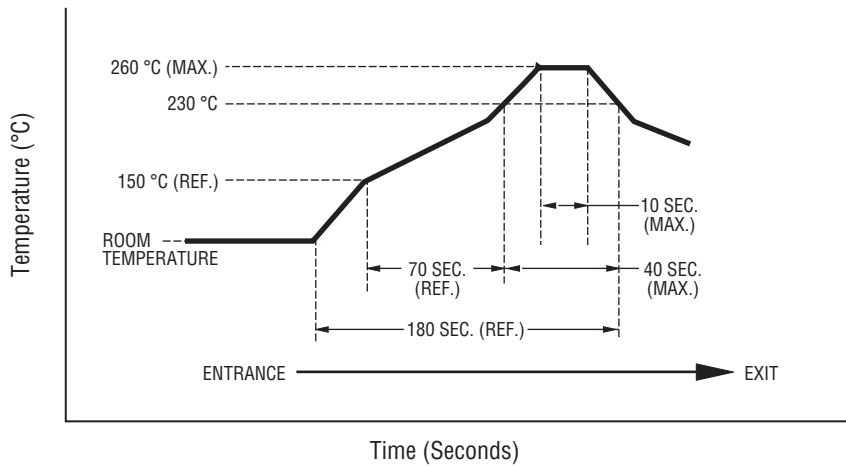
Temperature +5 °C to +35 °C
 Humidity..... 45 % to 85 % RH

Standard Resistance Table

Resistance (Ohms)	Resistance 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

Popular distribution values listed in boldface.

Recommended Reflow Solder Profile



Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com

Europe: Tel: +36 88 885 877 • Email: eurocus@bourns.com

Mexico: Tel: +52 614 478 0400 • Email: mexicus@bourns.com

The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com

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REV. 08/24

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Users should verify actual device performance in their specific applications.

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