TC42 – 2 mm SMD Trimpot® Trimming Potentiometer

**Features**

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

**Additional Information**

Click these links for more information:

- [PRODUCT SELECTOR](#)
- [TECHNICAL LIBRARY](#)
- [INVENTORY SAMPLES](#)
- [CONTACT](#)

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**Electrical Characteristics**

- Standard Resistance Range: 100 ohms to 1 meghm
  (see standard resistance table)
- Resistance Tolerance: ±25 % std.
- Absolute Minimum Resistance: 1K Ohms
- Temperature Range: -40 °C to +100 °C
- Temperature Coefficient: ±250 ppm/°C
- Humidity: 90-95 % RH
- Load Life: 1000 hrs
- ESD Classification (HBM): N/A
- TRS ±5 %
- Moisture Sensitivity Level: 5 % max.
- Power Rating: 0.1 watt
- Contact Resistance Variation: > 1K Ohms
- Contact Angle: 45 mm ±20 °

**Environmental Characteristics**

- Torque: 0.49 - 7.84 mN-m max.
- Mechanical Angle: Continuous rotation
- Standard Packaging: 3000 pcs./7” reel
- Rotational Cycling: 20 cycles, TRS ±10 %
- Moisture Sensitivity Level: N/A
- Temperature Coefficient: ±25 % std.
- Temperature Range: -40 °C to +100 °C
- Power Rating (50 VDC max.): 0.1 watt
- Load Life: @70 °C rated power 1000 hrs
- TRS ±5 %
- Pushing Static Force: ≦4.9 N
- ESD Classification (HBM): N/A
- TRS ±5 %
- Temperature Range: -40 °C to +100 °C
- Power Rating (50 VDC max.): 0.1 watt
- Load Life: @70 °C rated power 1000 hrs
- TRS ±5 %

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**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 TC42X2 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.

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**Physical Characteristics**

- Torque: 0.49 - 7.84 mN-m max.
- Mechanical Angle: Continuous rotation
- Standard Packaging: 3000 pcs./7” reel
- Rotational Cycling: 20 cycles, TRS ±10 %
- Moisture Sensitivity Level: N/A
- Temperature Coefficient: ±25 % std.
- Temperature Range: -40 °C to +100 °C
- Power Rating (50 VDC max.): 0.1 watt
- Load Life: @70 °C rated power 1000 hrs
- TRS ±5 %
- Pushing Static Force: ≦4.9 N

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**Recommended Land Pattern**

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**Packaging Specifications**

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**WARNING** Cancer and Reproductive Harm

[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)
How To Order

TC42 X - 2 - 103 E

Model

TC42

Style

-2 = Cross Slot Rotor

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

Recommended Reflow Solder Profile

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>Time (Seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Temperature</td>
<td>180 sec. (Ref.)</td>
</tr>
<tr>
<td>150 °C (Ref.)</td>
<td>40 sec. (Max.)</td>
</tr>
<tr>
<td>230 °C</td>
<td>10 sec. (Max.)</td>
</tr>
<tr>
<td>260 °C (Max.)</td>
<td>70 sec. (Ref.)</td>
</tr>
<tr>
<td>260 °C (Max.)</td>
<td>180 sec. (Ref.)</td>
</tr>
</tbody>
</table>

Standard Resistance Table

<table>
<thead>
<tr>
<th>Resistance (Ohms)</th>
<th>Resistance Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>101</td>
</tr>
<tr>
<td>200</td>
<td>201</td>
</tr>
<tr>
<td>500</td>
<td>501</td>
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<td>502</td>
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<tr>
<td>1,000,000</td>
<td>105</td>
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</tbody>
</table>

Popular distribution values listed in boldface.

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