New P2TC High Precision Thin Film Wraparound Chip Resistor Delivers Tight TCR of ± 2 ppm/C Over 100 Ω to 3.05 MΩ Resistance Range, Features Operating Temp. Range From -55 °C to +155 °C and Power to 1 W in Five Case Sizes From 0402 to 2010

Product Benefits:
- Tight TCR of ± 2 ppm/C
- Wide resistance range of 100 Ω to 3.05 MΩ
- Tolerances down to ± 0.01 %
- Available in five case sizes from 0402 to 2010
- Broad temperature range of -55 °C to +155 °C
- High power rating to 1 W
- Very low noise of < -35 dB
- Low voltage coefficient of < 0.01 ppm/V
- Load-life stability of ± 0.05 % typical for 2,000 hours at +70 °C
- RoHS-compliant, halogen-free, and Vishay Green
- Sulfur-resistant per the ASTM B809-95 humid vapor test

Market Applications:
- Instrumentation, military and avionics guidance systems, load cell electronics in weighing systems, and operational amplifiers for test and measurement equipment

The News:
Vishay Intertechnology introduces a new high precision thin film wraparound chip resistor for industrial, medical, military, and aerospace applications. The Vishay Sfernice P2TC offers a tight TCR of ± 2 ppm/C over wider resistance and temperature ranges — and in more case sizes with higher power ratings — than competing devices.
- The resistor’s specifications exceed the requirements of MIL-PRF-55342G
- The P2TC is optimized for precision applications requiring low noise and high stability over time and temperature

The Key Specifications:

<table>
<thead>
<tr>
<th>Case size</th>
<th>Resistance range (Ω)</th>
<th>Rated power (W) Pn¹</th>
<th>Rated Power (W) Pd²</th>
<th>Limiting element voltage (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0402</td>
<td>100 to 35 k</td>
<td>0.063</td>
<td>0.040</td>
<td>50</td>
</tr>
<tr>
<td>0603</td>
<td>100 to 128 k</td>
<td>0.125</td>
<td>0.100</td>
<td>75</td>
</tr>
<tr>
<td>0805</td>
<td>100 to 291 k</td>
<td>0.200</td>
<td>0.125</td>
<td>150</td>
</tr>
<tr>
<td>1206</td>
<td>150 to 1.09 M</td>
<td>0.330</td>
<td>0.250</td>
<td>200</td>
</tr>
<tr>
<td>2010</td>
<td>200 to 3.05 M</td>
<td>1</td>
<td>0.500</td>
<td>300</td>
</tr>
</tbody>
</table>

¹Pn = nominal power
²Pd = derated power intended to improve stability

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To access the product datasheet on the Vishay Website, go to http://www.vishay.com/ppg?53080 (P2TC)

**Availability:**
Samples and production quantities of the P2TC resistor are available now, with lead times of 16 weeks.

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