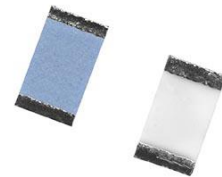


New P2TC High Precision Thin Film Wraparound Chip Resistor Delivers Tight TCR of ± 2 ppm/C Over 100 Ω to 3.05 M Ω Resistance Range, Features Operating Temp. Range From -55 $^{\circ}\text{C}$ to +155 $^{\circ}\text{C}$ and Power to 1 W in Five Case Sizes From 0402 to 2010

Product Benefits:

- Tight TCR of ± 2 ppm/C
- Wide resistance range of 100 Ω to 3.05 M Ω
- Tolerances down to ± 0.01 %
- Available in five case sizes from 0402 to 2010
- Broad temperature range of -55 $^{\circ}\text{C}$ to +155 $^{\circ}\text{C}$
- 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 $^{\circ}\text{C}$
- 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:

| Case size | Resistance range (Ω) | Rated power (W) Pn ¹ | Rated Power (W) Pd ² | Limiting element voltage (V) |
|-----------|-------------------------------|---------------------------------|---------------------------------|------------------------------|
| 0402 | 100 to 35 k | 0.063 | 0.040 | 50 |
| 0603 | 100 to 128 k | 0.125 | 0.100 | 75 |
| 0805 | 100 to 291 k | 0.200 | 0.125 | 150 |
| 1206 | 150 to 1.09 M | 0.330 | 0.250 | 200 |
| 2010 | 200 to 3.05 M | 1 | 0.500 | 300 |

¹Pn = nominal power

² Pd = derated power intended to improve stability



NEW PRODUCT INFORMATION



Product Group: Vishay Sfernice, Thin Film Resistors / **May 2021**

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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