

**NEW PRODUCT INFORMATION Product Group:** Vishay Sfernice, Thin Film Resistors / May 2022

# New PEP Thin Film Wraparound Chip Resistor Offers Power to 1 W and Resistance From 39 $\Omega$ to 900 k $\Omega$ in Four Small Case Sizes From 0402 to 1206, Enabling Miniaturization and Increasing Reliability

# **Product Benefits:**

- Available in four case sizes from 0402 to 1206
- High power rating to 1 W in the 1206 case size (without cooling under the PCB)
- Wide resistance range from 39  $\Omega$  to 900 k $\Omega$
- Tolerances down to  $\pm$  0.05 %
- Broad temperature range of -55 °C to +155 °C
- Very low noise of < -35 dB</li>
- Low voltage coefficient of < 0.01 ppm/V</li>
- Load-life stability of  $\pm$  0.1 % 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, automatic test equipment, industrial appliances, and
operational amplifiers for test and measurement equipment

# The News:

Vishay Intertechnology introduces a new high precision thin film wraparound chip resistor for industrial, military, and aerospace applications.

- Offers the widest resistance value range on the market
- Delivers higher power ratings in smaller case sizes than competing devices, which enables miniaturization and increases reliability by reducing the mechanical stress on solder joints
- Optimized for precision applications requiring low noise and high stability over time and temperature
- The device's specifications exceed the requirements of MIL-PRF-55342G

Case size	Resistance range (Ω)	Rated power (W) Pn <sup>1</sup>	Rated power (W) Pd <sup>2</sup>	Limiting element voltage (V)
0402	39 to 50 k	0.125	0.063	50
0603	39 to 108 k	0.320	0.125	75
0805	39 to 240 k	0.500	0.200	150
1206	39 to 900 k	0.660 <sup>3</sup>	0.330	200

### The Key Specifications:

<sup>1</sup> Pn = nominal power

<sup>2</sup> Pd = derated power intended to improve stability

<sup>3</sup> Pn = 1 W if device is mounted on an alumina board







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

To access the product datasheet on the Vishay Website, go to <a href="http://www.vishay.com/ppg?53083">http://www.vishay.com/ppg?53083</a> (PEP)

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