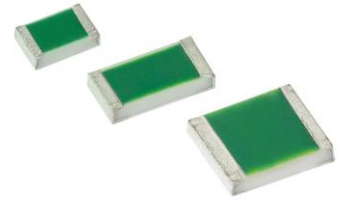




Extended TNPV e3 Series of High Voltage Thin Film Flat Chip Resistors With Compact 0805 Case Size; Automotive Grade Device Saves Space and Lowers Costs With Operating Voltages to 450 V, Tight Tolerance Down to $\pm 0.1\%$, and Low TCR Down to ± 10 ppm/K

Product Benefits:

- Compact 0805 case size
- High operating voltages to 450 V
- Tight tolerances of $\pm 0.1\%$
- Low TCR down to ± 10 ppm/K
- AEC-Q200 qualified
- Extremely stable and reliable in a variety of environmental conditions
 - Excellent load-life stability of $\leq 0.05\%$ for 1,000 hours at rated power and +70 °C ambient temperature
 - Superior moisture resistivity (85 °C; 85 % RH)
 - Sulfur resistance in accordance with ASTM B 809
- Suitable for processing on automatic SMD assembly systems and for automatic soldering
- Halogen-free and RoHS-compliant
- Pure matte tin plating provides compatibility with lead (Pb)-free and lead (Pb)-containing soldering processes



Market Applications:

- Voltage measurement in automotive and industrial inverters; voltage dividers for battery management systems; on-board chargers; and test and measurement equipment

The News:

Vishay Intertechnology announces that the company has extended its TNPV e3 series of Automotive Grade high voltage thin film flat chip resistors with a smaller 0805 case size. The Vishay Draloric TNPV0805 e3 is the industry's first such device in the compact 0805 case size to combine high operating voltages to 450 V with tight tolerance of $\pm 0.1\%$ and low TCR down to ± 10 ppm/K.

- With its small size and high voltage capability, the TNPV0805 e3 reduces component counts to save board space and lowers costs by replacing larger resistors and multiple devices in similar case sizes, without compromising on precision
- The complete TNPV e3 series is available in 0805, 1206, and 1210 case sizes, with resistance values from 121 k Ω to 3.01 M Ω , an operating temperature range of -55 °C to +155 °C, and maximum operating voltage up to 1,000 V for the largest case size



The Key Specifications:

Part number	TNPV0805 e3	TNPV1206 e3	TNPV1210 e3
Case size	0805	1206	1210
Resistance range (Ω)	180 k to 1 M	160 k to 2 M	121 k to 3.01 M
Tolerance (%)	± 1 ; ± 0.5 ; ± 0.1		
TCR (ppm/K)	± 50 ; ± 25 ; ± 15 ; ± 10		
Rated dissipation, P_{70} (W)	0.20	0.25	0.33
Operating voltage (V)	450	700	1000
Temperature range ($^{\circ}\text{C}$)	-55 to +155		

Availability:

Samples and production quantities of the TNPV0805 e3 are available now, with typical lead times of 12 weeks.

To access the product datasheet on the Vishay Website, go to <http://www.vishay.com/ppg?28881> (TNPV e3)

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