

# TNPW e3 Series Automotive Grade High Stability Thin Film Flat Chip Resistors in Compact 0201 Case Size Save Space and Increase Efficiency With TCR of $\pm 25$ ppm/K and Tight Tolerances of $\pm 0.1$ %

## Product Benefits:

- Increase accuracy in space-constrained applications
  - Compact 0201 case size
  - Low TCR of  $\pm 25$  ppm/K
  - Tight tolerances down to  $\pm 0.1$  %
- Offers excellent long term stability
  - For example, permitted maximum resistance change of  $\leq 0.05$  % for 1,000 hours at rated power  $P_{70}$
- AEC-Q200 qualified
- Superior moisture resistivity (85 °C; 85 % RH)
- Sulfur resistance in accordance to ASTM B 809
- Wide temperature range of -55 °C to +155 °C
- Halogen-free and RoHS-compliant
- Pure tin plating provides compatibility with lead (Pb)-free and lead (Pb)-containing soldering processes



## Market Applications:

- Operational amplifier circuits and sensors for automotive and industrial sensors and electronic modules, smart phones and tablets, smart watches, and fitness trackers

## The News:

Vishay Intertechnology announces that the company has extended its TNPW e3 series of Automotive Grade high stability thin film flat chip resistors with a new device in the compact 0201 case size.

- The complete TNPW e3 series is available in 0201, 0402, 0603, 0805, 1206, and 1210 case sizes, with resistance values from 10  $\Omega$  to 3.01 M $\Omega$
- The resistors' extremely stable operation withstands even harsh environmental conditions
- Suitable for processing on automatic SMD assembly systems and for automatic soldering

## The Key Specifications:

Part #	Resistance ( $\Omega$ )	Tolerance (%)	TCR (ppm/K)	Rated dissipation (W)	Operating voltage (V)
TNPW0201 e3	22 to 40 k	$\pm 0.5$ ; $\pm 0.1$	$\pm 25$	0.075	25
TNPW0402 e3	10 to 100 k	$\pm 1$ ; $\pm 0.5$ ; $\pm 0.1$	$\pm 50$	0.100	50
TNPW0603 e3	1 to 332 k		$\pm 25$	0.125	75
TNPW0805 e3	1 to 1 M		$\pm 15$	0.200	150
TNPW1206 e3	1 to 2 M		$\pm 10$	0.400	200
TNPW1210 e3	10 to 3.01 M		0.500	200	



## NEW PRODUCT INFORMATION



Product Group: Vishay Draloric, Resistors / August 2020

### Availability:

Samples and production quantities of the TNPW e3 series resistor in the 0201 case size 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?28758> (TNPW e3)

### Contact Information:

#### THE AMERICAS

Paulo Adabo  
[paulo.adabo@vishay.com](mailto:paulo.adabo@vishay.com)

#### EUROPE

Michael Hettrich  
[michael.hettrich@vishay.com](mailto:michael.hettrich@vishay.com)

#### ASIA/PACIFIC

Victor Goh  
[victor.goh@vishay.com](mailto:victor.goh@vishay.com)