

# NTCS0603E3.....T and NTCS0805E3.....T Series of Automotive Grade, Glass Protected NTC Thermistors in 0603 and 0805 Case Sizes Now Offer Lower $R_{25}$ Values of 1 k $\Omega$ and 1.5 k $\Omega$ , in Addition to a 5 k $\Omega$ Value for IGBT and Power MOSFET Modules in EVs and HEVs

## Product Benefits:

- AEC-Q200 qualified
- New  $R_{25}$  values: 1 k $\Omega$ , 1.5 k $\Omega$ , and 5 k $\Omega$
- Fully glass coated and protected
- Tolerances down to  $\pm 1\%$  for both  $R_{25}$  and beta ( $B_{25/85}$ ) values for precise temperature sensing, protection, and compensation
- Wide temperature range of -40 °C to +150 °C
- SMD construction with NiSn terminations
- Suitable for wave or reflow soldering
- RoHS-compliant and halogen-free



## Market Applications:

- Automotive buck / boost converters, LED modules, and battery packs; EV charging infrastructure; inverters for windmills and solar panels; and office equipment

## The News:

Vishay Intertechnology announces that it has extended its NTCS0603E3.....T and NTCS0805E3.....T series of Automotive Grade, glass protected NTC thermistors in the 0603 and 0805 case sizes with new electrical resistance values at +25 °C ( $R_{25}$ ).

- Now available with lower  $R_{25}$  values of 1 k $\Omega$  and 1.5 k $\Omega$ , in addition to a new 5 k $\Omega$  value optimized for the protection of IGBT and power MOSFET modules in electric (EV) and hybrid electric (HEV) vehicles
- Smaller than MELF resistors, while offering easier mounting and greater resistance to bending

## The Key Specifications:

Series	NTCS0603E3.....T	NTCS0805E3.....T
Case size	0603	0805
$R_{25}$ value	1 k $\Omega$ to 100 k $\Omega$	1 k $\Omega$ to 680 k $\Omega$
$R_{25}$ tolerance	$\pm 1\%$ ; $\pm 2\%$ ; $\pm 3\%$ ; $\pm 5\%$	
$B_{25/85}$ value	3170 K to 4100 K	3370 K to 4125 K
$B_{25/85}$ tolerance	$\pm 1\%$	$\pm 1\%$ ; $\pm 3\%$
Max. power dissipation	125 mW	210 mW
Operating temp. range	-40 °C to +150 °C	
TCR	-7 %/K at -40 °C to -2 %/K at +150 °C	-6 %/K at -40 °C to -2 %/K at +150 °C



## NEW PRODUCT INFORMATION



**Product Group:** Vishay BCcomponents, Non-Linear Resistors / **April 2022**

### Availability:

Samples and production quantities of the extended NTCS0603E3.....T and NTCS0805E3.....T series are available now, with lead times of 20 weeks for large orders.

To access the product datasheets on the Vishay Website, go to

<http://www.vishay.com/ppg?29056> (NTCS0603E3.....T)

<http://www.vishay.com/ppg?29044> (NTCS0805E3.....T)

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