NTCLE317E4103SBA AEC-Q200 Qualified NTC Thermistor With Long PEEK-Insulated, NiFe Leads Offers Accuracy to ± 0.5 °C and Response Time of Less Than 3 s in Air for Fast, High Accuracy Measurement

Product Benefits:

- Long PEEK-insulated, nickel-iron (NiFe) leads
- Low thermal gradient
- Temperature measurement accuracy to ± 0.5 °C
- Small maximum bead size diameter of 1.6 mmx
- Fast response time of less than 3 s in air
- AEC-Q200 qualified
- Resistance at +25 °C (R_{25}) of 10 kΩ, with curve tracking between 25 °C and 85 °C
- Beta ($B_{25/85}$) of 3984 K, with tolerance of ± 0.5 %
- Maximum power dissipation of 50 mW
- Wide operating temperature range of -55 °C to +150 °C
- RoHS-compliant

Market Applications:

- Boilers, fire and smoke detectors, battery management systems (BMS) for battery packs, charge circuits, DC fan motors, seat heating and HVAC sensors in cars, and printer heads

The News:

Vishay Intertechnology introduces a new epoxy-coated NTC thermistor with long PEEK-insulated, NiFe leads and a low thermal gradient for fast, high accuracy temperature measurement, sensing, and control in automotive and industrial applications.

- The sensor's conductor wire features the lowest thermal conductivity available on the market
  - Due to its excellent thermal decoupling, the device enables superior temperature measurement accuracy compared to other conductive wire materials, such as copper, which can deviate by several degrees
- High adhesive strength between the device's PEEK-insulated lead wires and encapsulating epoxy lacquer
  - Improves reliability in high humidity conditions
- Long — 75 mm — and flexible radial leads allow for special mounting or assembly requirements

The Key Specifications:

- R_{25}: 10 kΩ
- R_{25} tolerance: ± 2.19 %
- Temperature accuracy
  - 25 °C to 85 °C: ± 0.5 °C
  - -55 °C to 150 °C: ± 1.0 °C
- $B_{25/85}$: 3984 K
- $B_{25/85}$ tolerance: ± 0.5 %
- Maximum power dissipation at 55 °C: 50 mW

Availability:
Samples and production quantities of the NTCLE317E4103SBA are available now, with lead times of six weeks.

To access the product datasheet on the Vishay Website, go to
http://www.vishay.com/ppg?29216 (NTCLE317E4103SBA)

Contact Information:

THE AMERICAS
Joshua Pollema
joshua.pollema@vishay.com

EUROPE
Mandy Maier
mandy.maier@vishay.com
Wolfgang Schiessl
Wolfgang.schiessl@vishay.com

ASIA/PACIFIC
Victor Goh
victor.goh@vishay.com