AEC-Q200 Qualified ISOA Thick Film Power Resistor in Compact SOT-227 Package Delivers High Pulse Handling Capability and Power Dissipation to 120 W, Offers Optional NTC Thermistor and PC-TIM to Simplify Designs, Save Space, and Lower Costs

Product Benefits:

- AEC-Q200 qualified
- Offered in the compact, low profile SOT-227 package
- Designed for mounting on a heatsink
- Optional NTC thermistor provides internal temperature monitoring
- Optional pre-applied Phase Change Thermal Interface Material (PC-TIM) enables more efficient mounting
- High pulse handling capability (i.e., 110 J for 0.1 s)
- Multi-pulse tested at 230 J for 670 ms and 3000 cycles and 350 J for 1060 ms and 5000 cycles
  - Additional custom testing options are also available
- High power dissipation up to 120 W
- Dielectric strength of 4000 Vrms
- Non-inductive design
- RoHS-compliant
- Can include two different resistors

Market Applications:

- Precharge, discharge, active discharge, or snubber resistor for automotive, industrial, and avionics, military, and space (AMS) applications

The News:

Vishay Intertechnology introduces a new AEC-Q200 qualified thick film power resistor in the compact, low profile SOT-227 package for mounting on a heatsink. Available with an optional NTC thermistor for internal temperature monitoring and pre-applied PC-TIM for more efficient mounting, the Vishay MCB ISOA offers high pulse handling capability and high power dissipation up to 120 W at an 85 °C bottom case temperature.

- With the option to integrate an AEC-Q200 qualified, temperature cycle tested NTC thermistor inside the resistor package, the ISOA simplifies designs and saves board space, while its optional PC-TIM streamlines installation in production
- The resistor’s high power and high energy dissipation simplify designs and lower costs by reducing the need for power components
- The ISOA is built on an exposed alumina substrate instead of a metal tab to further lower costs

The Key Specifications:

- Max. rated power at 85 °C bottom case temperature: 120 W
- Resistance range: 0.47 Ω to 1 MΩ
  - 0.1 Ω on request
- Tolerance: ± 5 % and ± 10 %
- TCR: ± 100 ppm/K, ± 150 ppm/K, and ± 300 ppm/K
- Dielectric strength of 4000 Vrms
- Maximum operating voltage: 1500 V
- Operating temperature range: 55 °C to +150 °C

Availability:
Samples and production quantities of the new resistor are available now, with lead times of 15 weeks.

To access the product datasheet on the Vishay Website, go to
http://www.vishay.com/ppg?32598 (ISOA)

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