Vishay Intertechnology Automotive Grade Optocouplers Deliver High Isolation Voltage Ratings and Distance for EVs and Solar Inverters

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Devices Combine Creepage and Clearance Distances of ≥ 11 mm, VIORM of 1500 Vpeak, and VIOWM of 1060 VRMS in Widebody SMD-8 Package With 600 CTI

MALVERN, Pa., May 20, 2026 (GLOBE NEWSWIRE) -- Vishay Intertechnology, Inc. (NYSE: VSH) today introduced two new Automotive Grade optocouplers with phototransistor output in a widebody package featuring a comparative tracking index (CTI) of 600. Designed to deliver signal transmission with high galvanic isolation for electric vehicles (EV) and solar inverters, the Vishay Semiconductors VOWA617A and VOWA618A provide V_{IORM} of 1500 V_{peak}, V_{IOWM} of 1060 V_{RMS}, and external creepage and clearance distances of ≥ 11 mm.

Offering the highest creepage distance in their class, the AEC-Q102 qualified devices released today provide a ≥ 38 % higher safety margin than typical 8 mm solutions, making them ideal for grid-connected on-board chargers (OBC), DC/DC converters, and battery management system (BMS) isolation stages. Exceeding the requirements for reinforced insulation in these high voltage applications, they combine their high V_{IORM} and V_{IOWM} — which represent increases of 6 % and 19 %, respectively, over competing devices — with an isolation voltage of 5300 V_{RMS} and V_{IOTM} of 8000 V_{peak}.

The optocouplers each consist of an infrared emitting diode, which is optically coupled to a silicon planar phototransistor detector in a widebody SMD-8 package. While standard solutions typically offer a CTI of 175, the 600 CTI of the VOWA617A and VOWA618A gives them a Material Group 1 rating, the highest insulation group. In addition, their 80 V collector-emitter voltage rating allows more design flexibility.

Compared to consumer-grade solutions that typically feature operating temperatures to +85 °C, the optocouplers operate over a wider -40 °C to +125 °C temperature range, with a junction temperature capability up to +145 °C. RoHS-compliant, halogen-free, and Vishay Green, the devices feature a wide current transfer ratio (CTR) range from 50 % to 600 % at low input currents of 5 mA for the VOWA617A and 1 mA for the VOWA618A.

Samples and production quantities of the new widebody optocouplers are available now, with lead times of eight weeks.

Vishay manufactures one of the world's largest portfolios of discrete semiconductors and passive electronic components that are essential to innovative designs in the automotive, industrial, computing, consumer, telecommunications, military, aerospace, and medical markets. Serving customers worldwide, Vishay is **The DNA of tech.**® Vishay Intertechnology, Inc. is a Fortune 1000 Company listed on the NYSE (VSH). More on Vishay at www.Vishay.com.

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Links to product datasheets:
http://www.vishay.com/ppg?80400 (VOWA617A, VOWA618A)

Link to product photo:
https://flickr.com/photos/vishay/albums/72177720333517113/

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