Vishay Intertechnology XClampR® Bidirectional Flat Clamping TVS in DO-218AC Package Deliver Low Clamping Voltage, High Power Density

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Commercial-Grade and AEC-Q101 Qualified Devices Feature Clamping Ratio Near 1.0, Stand-off Voltages from 33 V to 85 V, and Peak Pulse Power Dissipation of 11 kW

MALVERN, Pa., Sept. 10, 2026 (GLOBE NEWSWIRE) -- Vishay Intertechnology, Inc. (NYSE: VSH) today introduced a new series of bidirectional XclampR® flat clamping transient voltage suppressors (TVS) in the surface-mount DO-218AC package. The industry's first such devices to provide peak pulse power dissipation comparable to 11 kW conventional TVS at 10/1000 µs — while maintaining a low clamping ratio (VC/VBR) close to 1.0 for high power density — the Vishay General SemiconductoXFD11KxxCA series features 15 devices in both commercial-grade and AEC-Q101 qualified versions.

The TVS released today provide maximum clamping voltages from 40.6 V to 104.0 V, breakdown voltages from 36.7 V to 104 V, and a wide stand-off voltage range from 33 V to 85 V, which supports 12 V, 24 V, and 48 V automotive system powertrains. Compared to conventional devices in DO-218-compatible packages, the XFD11KxxCA series provides lower clamping voltage at the same stand-off voltage, while delivering approximately 1.6x higher peak pulse current — up to 207.1 A at 10/1000 µs.

The TVS feature low and stable clamping and breakdown voltages over a wide temperature range of -55 °C to +175 °C. This allows designers to select lower voltage downstream components — such as MOSFETs and capacitors — to reduce voltage overshoot and enable smaller design guarc bands, lowering system costs. The devices provide 8/20 µs surge capability up to 2140 A, supporting low dynamic resistance and flat clamping performance. In addition, they feature low leakage current of 10 µA maximum at stand-off voltage (VWM) to minimize power loss.

The XFD11KxxCA series is designed to protect sensitive electronics against voltage transients induced by inductive load switching and lightning. Automotive applications include ADAS, autonomous driving control units (ADCU), on-board chargers (OBC), DC/DC converters, traction inverters, battery management systems (BMS), body control modules (BCM), park distance control (PDC), oil pumps, camera systems, and automatic air conditioning systems. In addition, the TVS will be used in energy storage systems; industrial servo motor systems, EPS, lighting systems, and automation controls; server power and AI server hot swap; telecom power supplies and T-Box DC/DC power conversion; and radar power supplies.

RoHS-compliant and halogen-free, the devices feature a moisture sensitivity level (MSL) of 1 in accordance with J-STD-020, with a maximum peak reflow temperature of 245 °C. Their matte tin-plated leads are solderable per J-STD-002 and JESD 22-B102.

Samples and production quantities of the new TVS are available now, with lead times of 12 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?98838 (XFD11K33CA thru XFD11K85CA)

Link to product photo:
https://www.flickr.com/photos/vishay/albums/72177720335422791

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