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TVSs Offer High Surge Capability, Low Leakage Current In SMC Package

Vishay Intertechnology's SMC3KxxxCAHM3_A is a series of surface-mount TRANSZORB bidirectional transient voltage suppressors (TVSs) in the SMC (DO-214AB) package for automotive, industrial, and telecom applications. Offering high surge capability of 3 kW at 10/1000 µs to meet the specifications of ISO 16750-2 Pulse b, the SMC3KxxxCAHM3_A series devices provide low leakage current down to 1 µA from 22 V to 120 V and high-temperature operation to +175°C (see the figure).

Suitable for high-reliability applications, the TVSs are AEC-Q101 qualified and offer extremely stable breakdown voltage from 11.1 V to 133 V across their entire operating temperature range of -55°C to +175°C. Designed to protect sensitive electronic equipment against voltage transients induced by inductive load switching and lightning, the devices are intended for automotive load dump protection and signal line protection in industrial and telecom systems.

The SMC3KxxxCAHM3_A series consists of 33 TVS part numbers with standoff voltages from 10 V to 120 V. The devices offer very fast response times, low incremental surge resistance, and excellent clamping capability, with a maximum clamping voltage from 17.0 V to 193 V at 10/1000 µs. The devices offer a moisture sensitivity level (MSL) of 1 in accordance with J-STD-020, LF maximum peak of 260°C.

Samples and production quantities of the SMC3KxxxCAHM3_A series TVSs are available now, with lead times of 12 weeks for large orders. For more information, see the SMC3K10CAHM3_A page.

Figure. Offered in the SMC (DO-214AB) package, the SMC3KxxxCAHM3_A series TRANSZORB bidirectional transient voltage suppressors protect sensitive electronics against voltage transients induced by inductive load switching and lighting on ICs, MOSFETs, and signal lines of sensor units in consumer, computer, industrial, automotive and telecom applications. These devices operate up to +175°C with stable breakdown voltage from 11.1 V to 133 V.

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