



# VETH100A1DD1 ESD Protection Diode Passes IEEE 10BASE-T1S Compliance Tests

The Vishay Semiconductors VETH100A1DD1 ESD protection diode — offered in the DFN1006 package — has successfully passed IEEE 10BASE-T1S compliance testing, confirming its suitability for use in automotive one-pair Ethernet (OPEN) bus architectures.

The VETH100A1DD1 meets all three OPEN Alliance EMC Test Specifications for ESD Protection Devices, supporting 10BASE-T1S, 100BASE-T1, and 1000BASE-T1 applications. In addition to the newly completed IEEE 10BASE-T1S compliance tests, the device has also passed compliance testing for 100BASE-T1 and 1000BASE-T1, with test reports available upon request.

Vishay Part Number
<a href="#"><u>VETH100A1DD1-G3-08</u></a>
<a href="#"><u>VETH100A1DD1HG3-08</u></a>



## Product Benefits

- Offered in the compact DFN1006-2B package with wettable flanks
- Compliant with OPEN Alliance 10BASE-T1S, 100Base-T1, and 1000Base-T1 specifications
- Offers a  $\pm 24$  V working voltage
- Very low clamping voltage of 31 V typical at 1 A
- Low dynamic resistance of 0.4  $\Omega$  typical
- Low maximum capacitance of 2 pF
- Provides transient protection for high speed data lines as per ISO 10605 and IEC 61000 4 2 at  $\pm 15$  kV (contact discharge) for 1000 pulses
- Available in an AEC-Q101 version
- Supports automated optical inspection (AOI)

## Key Applications

- ESD protection for automotive Ethernet networks, supporting OPEN Alliance 10BASE-T1S, 100BASE-T1, and 1000BASE-T1 applications



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## Key Specifications

- Working voltage:  $\pm 24$  V
- Trigger voltage:  $> 100$  V
- Clamping voltage: 31 V typical at 1 A
- Dynamic resistance: 0.4  $\Omega$  typical
- Capacitance: 2 pF maximum
- Capacitance: 1 pF maximum with two devices in series, in accordance with OPEN Alliance 10Base-T1S

## Useful Links

- [Infographic](#)
- [Sell Sheet](#)

For further information, please contact our regional marketing offices.

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