

# New VCUT0714BHD1 BiAs Single-Line ESD Protection Diode Features Space-Saving DFN1006-2A Package With Side-Wettable Terminals and Low Capacitance Down to 8 pF Typical for Interface Protection in Commercial and Automotive Applications

## Product Benefits:

- Compact DFN1006-2A package with side-wettable terminals
- Low load capacitance down to 8 pF typical
- Available in an AEC-Q101 qualified version
- Low maximum leakage current of  $< 0.1 \mu\text{A}$  at the working voltage of 7 V or 14 V
- Breakdown voltage of 7.3 V or 14.5 V typical at 1 mA
- Maximum clamping voltage of 15 V at 3.6 A or 30 V at 2 A
- Provides transient protection for one data line as per IEC 61000-4-2 at  $\pm 25 \text{ kV}$  (contact) and  $\pm 30 \text{ kV}$  (air) discharge
- Moisture sensitivity level (MSL) of 1 in accordance with J-STD-020
- UL 94 V-0 flammability rating
- RoHS-compliant, halogen-free, and Vishay Green
- Supports automated optical inspection (AOI) for automotive systems
- Soldering can be checked by standard vision inspection; no X-ray is required



## Market Applications:

- Interface protection in commercial and automotive applications

## The News:

Vishay Intertechnology releases a new bidirectional asymmetrical (BiAs) single-line ESD protection diode in the compact new DFN1006-2A package with side-wettable terminals.

- Saves space over solutions in SOT packages
- Provides protection of high speed data lines against transient voltage signals
- Due to the short leads and small size of the DFN1006-2A package, the device's line inductance is very low, allowing fast transients such as an ESD strike to be clamped with minimal over- or undershoots

## The Key Specifications:

- Package: DFN1006-2A
- Working voltage: -7 V to +14 V or -14 V to +7 V
- Load capacitance: 8 pF typical; 8.5 pF maximum
- Leakage current:  $< 0.1 \mu\text{A}$
- Typical breakdown voltage: 7.3 V or 14.5 V at 1 mA
- Maximum clamping voltage: 15 V at 3.6 A or 30 V at 2 A



## Device Specification Table:

Ordering part number	Package	Type	VRWM	Capacitance
VCUT0714BHD1-G3-08	DFN1006-2A	Commercial	-7 V to +14 V; -14 V to +7 V	8 pF
VCUT0714BHD1HG3-08	DFN1006-2A	AEC-Q101	-7 V to +14 V; -14 V to +7 V	8 pF

### Availability:

Samples and production quantities of the VCUT0714BHD1 are available now, with lead times of 12 weeks for large orders.

To access the product datasheet on the Vishay Website, go to <http://www.vishay.com/ppg?86177> (VCUT0714BHD1)

### Contact Information:

**The Americas**  
[Diodes-Americas@vishay.com](mailto:Diodes-Americas@vishay.com)

**Europe**  
[Diodes-Europe@vishay.com](mailto:Diodes-Europe@vishay.com)

**Asia/Pacific**  
[Diodes-Asia@vishay.com](mailto:Diodes-Asia@vishay.com)