New VPUT0714BHD1 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 μA 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 ± 25 kV (contact) and ± 30 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 μA
- 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:

<table>
<thead>
<tr>
<th>Ordering part number</th>
<th>Package</th>
<th>Type</th>
<th>VRWM</th>
<th>Capacitance</th>
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</thead>
<tbody>
<tr>
<td>VCU0714BHD1-G3-08</td>
<td>DFN1006-2A</td>
<td>Commercial</td>
<td>-7 V to +14 V; -14 V to +7 V</td>
<td>8 pF</td>
</tr>
<tr>
<td>VCU0714BHD1HG3-08</td>
<td>DFN1006-2A</td>
<td>AEC-Q101</td>
<td>-7 V to +14 V; -14 V to +7 V</td>
<td>8 pF</td>
</tr>
</tbody>
</table>

**Availability:**
Samples and production quantities of the VCU0714BHD1 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](http://www.vishay.com/ppg?86177) (VCUT0714BHD1)

**Contact Information:**

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<tr>
<th>The Americas</th>
<th>Europe</th>
<th>Asia/Pacific</th>
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<tr>
<td><a href="mailto:Diodes-Americas@vishay.com">Diodes-Americas@vishay.com</a></td>
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