**CMYTVS5-2**

**SURFACE MOUNT SILICON**

**LOW CAPACITANCE**

**5 VOLT, 2-LINE**

**TVS/DIODE ARRAY**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMYTVS5-2 is a 2-line TVS/Diode array packaged in the SOT-543 surface mount case. This device, with its low capacitance, was designed to protect two high speed data or transmission lines from over-voltage transients and ESD damage.

**MARKING CODE: C52**

**APPLICATIONS:**

- USB 2.0 power and data line protection
- HDMI
- DVI
- Ethernet ports

**FEATURES:**

- 15kV ESD protection
- Low capacitance
- Low clamping voltage
- Protects two I/O lines
- Protects supply voltage rail

**MAXIMUM RATINGS:** (TA=25°C)

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>UNITS</th>
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</thead>
<tbody>
<tr>
<td>PPK</td>
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**ELECTRICAL CHARACTERISTICS PER DIODE:** (TA=25°C)

<table>
<thead>
<tr>
<th>Maximum Reverse Stand-Off Voltage</th>
<th>Minimum Reverse Breakdown Voltage pin 4 to pin 1</th>
<th>Maximum Reverse Leakage Current pin 4 to pin 1</th>
<th>Maximum Clamping Voltage I/O to pin 1 (8x20μs)</th>
<th>Maximum Clamping Voltage I/O to pin 1 (8x20μs)</th>
<th>Off State Junction Capacitance I/O to GND (VR=0, f=1.0MHz)</th>
<th>Off State Junction Capacitance I/O to I/O (VR=0, f=1.0MHz)</th>
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<tbody>
<tr>
<td>VRWM VZ @ IZ VR @ IR VR @ VR</td>
<td>V</td>
<td>mA</td>
<td>μA</td>
<td>V</td>
<td>A</td>
<td>V</td>
</tr>
<tr>
<td>V</td>
<td>5.0</td>
<td>6.2</td>
<td>1.0</td>
<td>1.0</td>
<td>5.0</td>
<td>9.0</td>
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SOT-543 CASE - MECHANICAL OUTLINE

PIN CONFIGURATION

LEAD CODE:
1) Ground
2) I/O
3) I/O
4) Supply Voltage (VCC)

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TYPICAL APPLICATION - USB 2.0

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TYPICAL ELECTRICAL CHARACTERISTICS

Typical Reverse Leakage Current Pin 4 to Pin 1

8x20μs Surge Current Waveform

Peak Value \( I_{pp} \)
Rise Time = \( t_{R} \)
Half of Peak Value (50% decay)
Time = \( t_{50} \)

Typical Capacitance I/O to GND

Typical Capacitance I/O to I/O

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• Application notes
• Application and design sample kits
• Custom product and package development

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