RClamp®0554S

KEY FEATURES

- High surge immunity: Ipp=25A, 8x20μs
- 4-line protection array
- Superior clamping voltage
- Low capacitance: 5pF
- Small package (SOT-23L)

BENEFITS

- Protection for lightning, ESD and Cable Discharge
- Ideal for protecting two differential pairs
- Protects sensitive next generation transceivers
- Provides minimal loading to preserve signal integrity
- Footprint compatible with SRV05-4

APPLICATIONS

- USB 2.0 Power and Data Line Protection
- 10/100/1000 Ethernet
- Video Graphics Cards
- Monitors and Flat Panel Displays
- Digital Video Interface (DVI)
- Notebook Computers
- IEEE 1394 Firewire Ports

PACKAGING

- JEDEC SOT-23 6L

Low Clamping Performance TVS Array for ESD, Cable Discharge & Surge Protection

The RClamp®0554S’s unique design incorporates eight surge rated, low capacitance steering diodes and a TVS diode in a single package. During transient conditions, the steering diodes direct the transient to either the positive side of the power supply line or to ground. The internal TVS diode prevents over-voltage on the power line, protecting any downstream components.
**ESD CLAMPING**
*(8KV CONTACT PER IEC 61000-4-2)*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Condition</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reverse Stand-Off Voltage</td>
<td>( V_{\text{RWM}} )</td>
<td>( V_{\text{RWM}} = 5 \text{V}, T = 25 \degree \text{C} )</td>
<td>5</td>
<td></td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>Reverse Breakdown Voltage</td>
<td>( V_{\text{BR}} )</td>
<td></td>
<td>6</td>
<td></td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>Reverse Leakage Current</td>
<td>( I_n )</td>
<td>( I_{\text{pp}} = 25 \text{A}, ; \text{tp} = 8/20\mu\text{s} )</td>
<td>0.5</td>
<td></td>
<td></td>
<td>( \mu \text{A} )</td>
</tr>
<tr>
<td>Clamping Voltage</td>
<td>( V_C )</td>
<td>Any I/O to Gnd, ( VR = 0, f = 1 \text{MHz} )</td>
<td>15</td>
<td></td>
<td></td>
<td>V</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I/O to I/O, ( VR = 0, f = 1 \text{MHz} )</td>
<td>5</td>
<td></td>
<td></td>
<td>pF</td>
</tr>
<tr>
<td>Junction Capacitance</td>
<td>( C_j )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pF</td>
</tr>
</tbody>
</table>

**SURGE CLAMPING**
*(TP = 8/20\muS)*

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>RClamp0554S.TCT</th>
<th>Working Voltage</th>
<th>Qty Per Reel</th>
<th>Reel Size</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>5V</td>
<td>3,000</td>
<td>7 inches</td>
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</tbody>
</table>

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