**Features**
- Designed for High Volume Applications
- Dual Crossover Quad Configuration
- Lead Free and RoHS* Compliant with 260°C Reflow Capability
- 100% Matte Tin Plating
- Available in SOT-26 (ODS-1292)
- Tape and Reel Deliverable

**Description**
M/A-COM’s MADS-003000-1292LT and MADS-003000-1292HT are high performance silicon Schottky dual crossover quads. These parts are usable for a variety of mixer applications. The closely matched junctions minimize variation in capacitance, forward voltage and dynamic resistance within the four diodes in the quad. These diodes are available in a small profile surface mount package SOT-26 (ODS-1292). They are available in tape and reel for automatic pick and place assembly.

**Associated Application Note**
M538 - Surface Mount Instructions

**Ordering Information**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>MADS-003000-1292LT</td>
<td>Tape and Reel</td>
</tr>
<tr>
<td>MADS-003000-1292HT</td>
<td>Tape and Reel</td>
</tr>
</tbody>
</table>

*M Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.*
Surface Mount Schottky Dual Crossover Quad

M/A-COM Products

Rev. V3

Electrical Specifications @ +25°C

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Forward Voltage 1</th>
<th>Junction Capacitance 2</th>
<th>Dynamic Resistance 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vf Min. (mV)</td>
<td>Vf Max. (mV)</td>
<td>Delta Vf Max. (mV)</td>
</tr>
<tr>
<td>MADS-003000-1292HT</td>
<td>515</td>
<td>600</td>
<td>10</td>
</tr>
<tr>
<td>MADS-003000-1292LT</td>
<td>200</td>
<td>245</td>
<td>10</td>
</tr>
</tbody>
</table>

1. Forward voltage is measured at If = 1 mA
2. Cj is measured at Vr = 0 volts and f = 1 MHz
3. Rd is measured @ If = 9.5 - 10.5 mA

Absolute Maximum Ratings @ 25°C 4,5

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Absolute Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>-65°C to +125°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-65°C to +125°C</td>
</tr>
<tr>
<td>Junction Temperature</td>
<td>+150°C</td>
</tr>
<tr>
<td>RF Incident Power (CW)</td>
<td>75 mW</td>
</tr>
<tr>
<td>Soldering Temperature</td>
<td>+260°C</td>
</tr>
</tbody>
</table>

4. Exceeding these limits may cause permanent damage.
5. ESD Precautions - Schottky diodes are ESD sensitive and can be damaged by static electricity. Proper ESD techniques must be used when handling these devices.
Surface Mount Schottky Dual Crossover Quad

Package Outline (SOT-26)

ODS-1292

NOTES:
1. REFERENCE JEDEC MO-174 AB FOR ADDITIONAL DIMENSIONAL AND TOLERANCE INFORMATION
2. REFER TO AN APPLICATION NOTE FOR PCB FOOTPRINT INFORMATION
3. ALL DIMENSIONS SHOWN AS INCHES/0.01MM

MADS-003000-1292 Series

ADVANCED: Data Sheets contain information regarding a product M/A-COM is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

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