**UF4001 - UF4007**

### Features
- Low forward voltage drop.
- High surge current capability.
- High reliability.
- High current capability.

### Fast Rectifiers (Glass Passivated)

**Absolute Maximum Ratings**

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Value</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td><strong>V_{RRM}</strong></td>
<td>Maximum Repetitive Reverse Voltage</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td><strong>I_{F(AV)}</strong></td>
<td>Average Rectified Forward Current, .375 &quot; lead length @ T_a = 75°C</td>
<td>1.0</td>
<td>A</td>
</tr>
<tr>
<td><strong>I_{FSM}</strong></td>
<td>Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave</td>
<td>30</td>
<td>A</td>
</tr>
<tr>
<td><strong>T_{STG}</strong></td>
<td>Storage Temperature Range</td>
<td>-65 to +150</td>
<td>°C</td>
</tr>
<tr>
<td><strong>T_J</strong></td>
<td>Operating Junction Temperature</td>
<td>-65 to +150</td>
<td>°C</td>
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</table>

**Thermal Characteristics**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Value</th>
<th>Units</th>
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<tbody>
<tr>
<td><strong>P_D</strong></td>
<td>Power Dissipation</td>
<td>2.08</td>
<td>W</td>
</tr>
<tr>
<td><strong>R_{JAN}</strong></td>
<td>Thermal Resistance, Junction to Ambient</td>
<td>60</td>
<td>°C/W</td>
</tr>
<tr>
<td><strong>R_{JIL}</strong></td>
<td>Thermal Resistance, Junction to Lead</td>
<td>15</td>
<td>°C/W</td>
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</table>

**Electrical Characteristics**

<table>
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<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Device</th>
<th>Units</th>
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<tbody>
<tr>
<td><strong>V_F</strong></td>
<td>Forward Voltage @ 1.0 A</td>
<td>1.0</td>
<td>1.7</td>
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<tr>
<td><strong>t_r</strong></td>
<td>Reverse Recovery Time</td>
<td>50</td>
<td>75</td>
</tr>
<tr>
<td><strong>I_R</strong></td>
<td>Reverse Current @ rated V_R</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td><strong>C_T</strong></td>
<td>Total Capacitance</td>
<td>17</td>
<td>pF</td>
</tr>
</tbody>
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Typical Characteristics

**Figure 1. Forward Current Derating Curve**

**Figure 2. Forward Voltage Characteristics**

**Figure 3. Non-Repetitive Surge Current**

**Figure 4. Reverse Current vs Reverse Voltage**

**Figure 5. Total Capacitance**

**Reverse Recovery Time Characteristic and Test Circuit Diagram**

NOTES:
1. Rise time = 7.0 ns max; Input impedance = 1.0 megaohm 22 pf.
2. Rise time = 10 ns max; Source impedance = 50 ohms.
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<th>Definition</th>
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<td></td>
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