UF4001 - UF4007
Fast Rectifiers

- Low forward voltage drop
- High surge current capability
- High reliability
- High current capability

![UF4001 - UF4007](image)

**Absolute Maximum Ratings**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V_{RRM}</strong></td>
<td>Maximum Repetitive Reverse Voltage</td>
<td>50 100 200 400 600 800 1000</td>
<td>V</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 8.3ms 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>
</tr>
</tbody>
</table>

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

**Thermal Characteristics**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P_D</strong></td>
<td>Power Dissipation</td>
<td>2.08</td>
<td>W</td>
</tr>
<tr>
<td><strong>R_{JJA}</strong></td>
<td>Thermal Resistance, Junction to Ambient</td>
<td>60</td>
<td>°C/W</td>
</tr>
<tr>
<td><strong>R_{JUL}</strong></td>
<td>Thermal Resistance, Junction to Lead</td>
<td>30</td>
<td>°C/W</td>
</tr>
</tbody>
</table>

**Electrical Characteristics**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V_F</strong></td>
<td>Forward Voltage @ 1.0A</td>
<td>1.0 1.7</td>
<td>V</td>
</tr>
<tr>
<td><strong>t_{rr}</strong></td>
<td>Reverse Recovery Time</td>
<td>50 75</td>
<td>ns</td>
</tr>
<tr>
<td><strong>I_{R}</strong></td>
<td>Reverse Current @ Rated V_R T_A = 25°C T_R = 100°C</td>
<td>10 50</td>
<td>µA</td>
</tr>
<tr>
<td><strong>C_T</strong></td>
<td>Total Capacitance V_R = 4.0V, f = 1.0MHz</td>
<td>17</td>
<td>pF</td>
</tr>
</tbody>
</table>
Typical Performance Characteristics

**Forward Characteristics**

![Forward Characteristics Graph](image)

**Reverse Characteristics**

![Reverse Characteristics Graph](image)

**Non-Repetitive Surge Current**

![Non-Repetitive Surge Current Graph](image)

**Typical Junction Capacitance**

![Typical Junction Capacitance Graph](image)

**Pulse Generator**

![Pulse Generator Diagram](image)
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Definition of Terms

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<th>Product Status</th>
<th>Definition</th>
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<tbody>
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