SEMTECH ELECTRONICS LTD.
(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

Dated: 15/06/2009

LL4448

Silicon Epitaxial Planar Switching Diode

Fast switching diode in MiniMELF case especially suited for automatic surface mounting. Identical electrically to standard 1N4448.

Absolute Maximum Ratings (Ta = 25 °C)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Reverse Voltage</td>
<td>V_{RM}</td>
<td>100</td>
<td>V</td>
</tr>
<tr>
<td>Reverse Voltage</td>
<td>V_R</td>
<td>75</td>
<td>V</td>
</tr>
<tr>
<td>Average Rectified Forward Current</td>
<td>I_{F(AV)}</td>
<td>150</td>
<td>mA</td>
</tr>
<tr>
<td>Surge Forward Current at t &lt; 1 s</td>
<td>I_{FSM}</td>
<td>500</td>
<td>mA</td>
</tr>
<tr>
<td>Power Dissipation</td>
<td>P_{tot}</td>
<td>500</td>
<td>1) mW</td>
</tr>
<tr>
<td>Junction Temperature</td>
<td>T_j</td>
<td>175</td>
<td>°C</td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>T_{stg}</td>
<td>-65 to +175</td>
<td>°C</td>
</tr>
</tbody>
</table>

1) Valid provided that electrodes are kept at ambient temperature.

Characteristics at T_a = 25 °C

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Min.</th>
<th>Max.</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward Voltage</td>
<td>V_F</td>
<td>0.62</td>
<td>0.72</td>
<td>V</td>
</tr>
<tr>
<td>at I_F = 5 mA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at I_F = 100 mA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reverse Leakage Current</td>
<td>I_R</td>
<td>-</td>
<td>25</td>
<td>nA</td>
</tr>
<tr>
<td>at V_R = 20 V</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at V_R = 75 V</td>
<td>I_R</td>
<td>-</td>
<td>5</td>
<td>µA</td>
</tr>
<tr>
<td>at 20 V, T_j = 150 °C</td>
<td>I_R</td>
<td>-</td>
<td>50</td>
<td>µA</td>
</tr>
<tr>
<td>Reverse Breakdown Voltage</td>
<td>V_{BR(R)}</td>
<td>100</td>
<td>-</td>
<td>V</td>
</tr>
<tr>
<td>at I_R = 100 µA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacitance</td>
<td>C_{tot}</td>
<td>-</td>
<td>4</td>
<td>pF</td>
</tr>
<tr>
<td>at V_R = 0, f = 1 MHz</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reverse Recovery Time</td>
<td>t_{rr}</td>
<td>-</td>
<td>4</td>
<td>ns</td>
</tr>
<tr>
<td>at I_F = 10 mA to I_R = 1 mA, V_R = 6 V, R_L = 100 Ω</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Forward characteristics

Admissible power dissipation
versus ambient temperature
Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature

Dynamic forward resistance
versus forward current

Relative capacitance
versus reverse voltage
Admissible repetitive peak forward current versus pulse duration
Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature

Leakage current versus junction temperature

Dated: 15/06/2009