BAT54HT1G
Schottky Barrier Diodes

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Marking</th>
<th>Package</th>
<th>Packing Method</th>
</tr>
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<tbody>
<tr>
<td>BAT54HT1G</td>
<td>A2</td>
<td>SOD-323 2L</td>
<td>Tape and Reel</td>
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</tbody>
</table>

Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at $T_A = 25^\circ C$ unless otherwise noted.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>$V_{RRM}$</td>
<td>Maximum Repetitive Reverse Voltage</td>
<td>30</td>
<td>V</td>
</tr>
<tr>
<td>$I_{F(AV)}$</td>
<td>Average Rectified Forward Current</td>
<td>200</td>
<td>mA</td>
</tr>
<tr>
<td>$I_{FSM}$</td>
<td>Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second</td>
<td>600</td>
<td>mA</td>
</tr>
<tr>
<td>$T_{STG}$</td>
<td>Storage Temperature Range</td>
<td>-65 to +150</td>
<td>°C</td>
</tr>
<tr>
<td>$T_J$</td>
<td>Operating Junction Temperature</td>
<td>-55 to +150</td>
<td>°C</td>
</tr>
</tbody>
</table>

* These ratings are limiting values above which the serviceability of the diode may be impaired.

Note:
1) These ratings are based on a maximum junction temperature of 150 °C.
These are steady limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.
### Thermal Characteristics

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>$P_D$</td>
<td>Power Dissipation</td>
<td>200</td>
<td>mW</td>
</tr>
<tr>
<td>$R_{ΘJA}$</td>
<td>Thermal Resistance, Junction to Ambient</td>
<td>600</td>
<td>°C/W</td>
</tr>
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</table>

### Electrical Characteristics

Values are at $T_A = 25°C$ unless otherwise noted.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Test Conditions</th>
<th>Min.</th>
<th>Max.</th>
<th>Units</th>
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<tbody>
<tr>
<td>$V_R$</td>
<td>Breakdown Voltage</td>
<td>$I_R = 10 \mu A$</td>
<td>30</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>$V_F$</td>
<td>Forward Voltage</td>
<td>$I_F = 0.1 mA$</td>
<td></td>
<td>240</td>
<td>mV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$I_F = 1.0 mA$</td>
<td></td>
<td>320</td>
<td>mV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$I_F = 10 mA$</td>
<td></td>
<td>400</td>
<td>mV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$I_F = 30 mA$</td>
<td></td>
<td>500</td>
<td>mV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$I_F = 100 mA$</td>
<td></td>
<td>0.8</td>
<td>V</td>
</tr>
<tr>
<td>$I_R$</td>
<td>Reverse Leakage</td>
<td>$V_R = 25 V$</td>
<td>2.0</td>
<td></td>
<td>µA</td>
</tr>
<tr>
<td>$C_T$</td>
<td>Total Capacitance</td>
<td>$V_R = 1 V, f = 1.0 MHz$</td>
<td>10</td>
<td></td>
<td>pF</td>
</tr>
<tr>
<td>$t_{rr}$</td>
<td>Reverse Recovery Time</td>
<td>$I_F = I_R = 10 mA, I_{RR} = 1.0 mA, R_L = 100 \Omega$</td>
<td>5.0</td>
<td></td>
<td>ns</td>
</tr>
</tbody>
</table>
Typical Performance Characteristics

Figure 1. Forward Current Characteristics

Figure 2. Reverse Leakage Current

Figure 3. Junction Capacitance
Physical Dimensions

SOD-323 2L

Figure 4. 2-LEAD, SOD323, JEITA SC76 (FORMED LEADS) (ACTIVE)

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<th>Definition</th>
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