Features

- Glass passivated chip junction
- Low leakage current
- Solder dip 260 °C, 10 s
- Halogen-free according to IEC 61249-2-21 definition
- Moisture sensitivity: level 1, per J-STD-020
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0

Typical Applications

For use of general purpose rectification in lighting, cellular phone, portable device, power supplies and other consumer applications.

Maximum Ratings (TA = 25 °C unless otherwise noted)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>GN1A</th>
<th>GN1B</th>
<th>GN1D</th>
<th>GN1G</th>
<th>GN1J</th>
<th>GN1K</th>
<th>GN1M</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum repetitive peak reverse voltage</td>
<td>V_{RRM}</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>800</td>
<td>1000</td>
<td>V</td>
</tr>
<tr>
<td>Maximum RMS voltage</td>
<td>V_{RMS}</td>
<td>35</td>
<td>70</td>
<td>140</td>
<td>280</td>
<td>420</td>
<td>560</td>
<td>700</td>
<td>V</td>
</tr>
<tr>
<td>Maximum DC blocking voltage</td>
<td>V_{DC}</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>800</td>
<td>1000</td>
<td>V</td>
</tr>
<tr>
<td>Maximum average output rectified current</td>
<td>I_{FAV}</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load</td>
<td>I_{FSM}</td>
<td></td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Rating for fusing(t&lt;8.3ms)</td>
<td>I^{2}_{f}</td>
<td>6.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A²/sec</td>
</tr>
<tr>
<td>Operating junction and storage temperature range</td>
<td>T_{J}, T_{STG}</td>
<td>-55 to +150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>°C</td>
</tr>
</tbody>
</table>

Electrical Characteristics (TA = 25 °C unless otherwise noted)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Test Conditions</th>
<th>Symbol</th>
<th>GN1A</th>
<th>GN1B</th>
<th>GN1D</th>
<th>GN1G</th>
<th>GN1J</th>
<th>GN1K</th>
<th>GN1M</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum instantaneous forward voltage</td>
<td>I_{F} = 1.0A, T_A = 25°C</td>
<td>V_{F}</td>
<td>0.99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Volts</td>
</tr>
<tr>
<td>Maximum DC reverse current at rated DC blocking voltage</td>
<td>T_A = 25°C</td>
<td>I_{R}</td>
<td>5.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>μA</td>
</tr>
<tr>
<td>Typical reverse recovery time</td>
<td>I_{F} = 0.5A, I_R = 1.0A, I_{RR} = 0.25A</td>
<td>t_{rr}</td>
<td>1.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>uS</td>
</tr>
<tr>
<td>Typical junction capacitance</td>
<td>4.0 V, 1 MHz</td>
<td>C_{J}</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pF</td>
</tr>
</tbody>
</table>

Thermal Characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>GN1A</th>
<th>GN1B</th>
<th>GN1D</th>
<th>GN1G</th>
<th>GN1J</th>
<th>GN1K</th>
<th>GN1M</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical thermal resistance(1)</td>
<td>R_{JA}</td>
<td>68</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>°C/W</td>
</tr>
<tr>
<td></td>
<td>R_{JL}</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: 1. The thermal resistance from junction to ambient and lead, mounted on P.C.B with 5×5mm copper pads, 2 oz. FR4 PCB

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**Ratings and Characteristics Curves**

(TA = 25°C unless otherwise noted)

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**Figure 1.** Forward Current Derating Curve

**Figure 2.** Maximum Non-Repetitive Peak Forward Surge Current

**Figure 3.** Typical Reverse Characteristics

**Figure 4.** Typical Junction Capacitance

**Figure 5.** Typical Instantaneous Forward Characteristics

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**Package Outline Dimensions**

Symbols | SMA(mm)
---|---
W | 12± 0.2
E | 1.75± 0.1
F | 5.5± 0.05
D0 | 1.5± 0.1
D1 | 1.50 ±0.1/-0
P0 | 4.0± 0.1
P1 | 4.0± 0.1
P2 | 2.0± 0.05
A0 | 2.65± 0.1
B0 | 5.25± 0.1

**Packing Information**

7500 pcs/Reel, 18 Reels/Box; 12mm Tape, 13" Reel

Tape & Reel Specification
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