**Features**

- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Extremely Low Thermal Resistance
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Lead Free Finish/RoHS Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)

**Maximum Ratings**

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 15°C/W Junction To Lead
- 85°C/W Junction To Ambient

<table>
<thead>
<tr>
<th>MCC Catalog Number</th>
<th>Device Marking</th>
<th>Maximum Recurrent Peak Reverse Voltage</th>
<th>Maximum RMS Voltage</th>
<th>Maximum DC Blocking Voltage</th>
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</thead>
<tbody>
<tr>
<td>GS1A-L</td>
<td>GS1A</td>
<td>50V</td>
<td>35V</td>
<td>50V</td>
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<tr>
<td>GS1B-L</td>
<td>GS1B</td>
<td>100V</td>
<td>70V</td>
<td>100V</td>
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<tr>
<td>GS1D-L</td>
<td>GS1D</td>
<td>200V</td>
<td>140V</td>
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<tr>
<td>GS1G-L</td>
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<td>400V</td>
<td>280V</td>
<td>400V</td>
</tr>
<tr>
<td>GS1J-L</td>
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<td>420V</td>
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<tr>
<td>GS1K-L</td>
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<td>800V</td>
<td>560V</td>
<td>800V</td>
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<tr>
<td>GS1M-L</td>
<td>GS1M</td>
<td>1000V</td>
<td>700V</td>
<td>1000V</td>
</tr>
</tbody>
</table>

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

- Average Forward current $I_{F(AV)}$ = 1.0A, $T_L = 110°C$
- Peak Forward Surge Current $I_{FSM}$ = 30A, 8.3ms, half sine,
- Maximum Instantaneous Forward Voltage $V_F$ = 1.0V, $I_{FM} = 1.0A; T_J = 25°C*$
- Maximum DC Reverse Current At Rated DC Blocking Voltage $I_R$ = 10µA, 50µA, $T_J = 25°C, T_J = 125°C$
- Typical Junction Capacitance $C_J = 15pF$, Measured at 1.0MHz, $V_0=4.0V$
- Typical Reverse Recovery Time $T_{rr} = 2000ns$, $I_R=0.5A, I_F=1.0A, I_R=0.25A$
- Rating for Fusing $I't = 3.735A's$

*Pulse test: Pulse width 300 µsec, Duty cycle 2%

GS1A-L thru GS1M-L

Figure 1
Typical Forward Characteristics

Figure 2
Junction Capacitance

Figure 3
Maximum Overload Surge Current

Figure 4
Forward Derating Curve
Figure 5
Peak Forward Surge Current

Peak Forward Surge Current - Amperes versus Pulse Duration - Milliseconds (mS)

Revision: F
www.mccsemi.com

**Ordering Information:**

<table>
<thead>
<tr>
<th>Device</th>
<th>Packing</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS1A-LTP~GS1M-LTP</td>
<td>Tape&amp;Reel: 7.5Kpcs/Reel</td>
</tr>
</tbody>
</table>

Note: Adding "-HF" suffix for halogen free, eg. GS1A-LTP-HF~GS1M-LTP-HF

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