

ROHS

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# GS1A-L THRU GS1M-L

## **Features**

- 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

| MCC     | Device  | Maximum Maximun |         | Maximum  |
|---------|---------|-----------------|---------|----------|
| Catalog | Marking | Reccurrent      | RMS     | DC       |
| Number  |         | Peak Reverse    | Voltage | Blocking |
|         |         | Voltage         |         | Voltage  |
| GS1A-L  | GS1A    | 50V             | 35V     | 50V      |
| GS1B-L  | GS1B    | 100V            | 70V     | 100V     |
| GS1D-L  | GS1D    | 200V            | 140V    | 200V     |
| GS1G-L  | GS1G    | 400V            | 280V    | 400V     |
| GS1J-L  | GS1J    | 600V            | 420V    | 600V     |
| GS1K-L  | GS1K    | 800V            | 560V    | 800V     |
| GS1M-L  | GS1M    | 1000V           | 700V    | 1000V    |

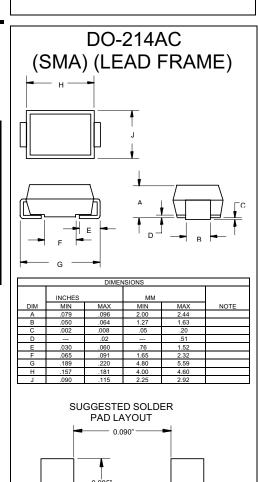
## Electrical Characteristics @ 25°C Unless Otherwise Specified

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|--|--------------------|--------------|---|--|--|
| Average Forward current  | I <sub>F(AV)</sub> | 1.0A         | T <sub>J</sub> = 110°C                            |  |  |
| Peak Forward Surge<br>Current                                    | I <sub>FSM</sub>   | 30A          | 8.3ms, half sine,                                 |  |  |
| Maximum<br>Instantaneous<br>Forward Voltage                      | $V_{F}$            | 1.0V         | I <sub>FM</sub> = 1.0A;<br>T <sub>J</sub> = 25°C* |  |  |
| Maximum DC Reverse Current At Rated DC Blocking Voltage          | I <sub>R</sub>     | 10μΑ<br>50μΑ | T <sub>J</sub> = 25°C<br>T <sub>J</sub> = 125°C   |  |  |
| Typical Junction<br>Capacitance                                  | С                  | 15pF         | Measured at 1.0MHz, V <sub>R</sub> =4.0V          |  |  |

<sup>\*</sup>Pulse test: Pulse width 300 µsec, Duty cycle 2%

Note 1: High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

# 1.0 Amp Glass Passivated Rectifier 50 to 1000 Volts

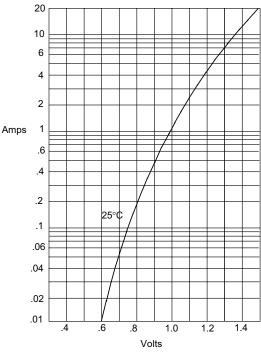


0.070"

# GS1A-L thru GS1M-L

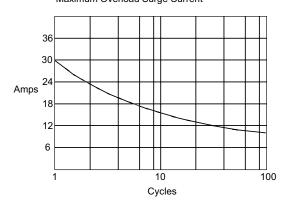


Figure 1
Typical Forward Characteristics



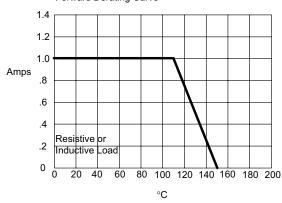
Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts

Figure 3 Micro Commercial Components Maximum Overload Surge Current



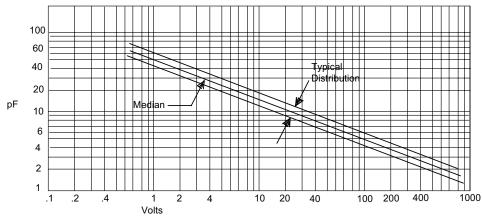
Peak Forward Current - Amperesversus Number of Cycles at 60Hz

Figure 4
Forward Derating Curve



Average Forward Rectified Current - Amperes*versus* Ambient Temperature -°C

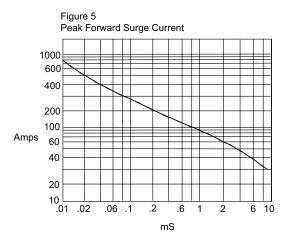
Figure 2
Junction Capacitance



Junction Capacitance - pF*versus*Reverse Junction Potential (Applied V + 0.7 Volts) - Volts

# GS1A-L thru GS1M-L





Peak Forward Surge Current - Amperesversus Pulse Duration - Milliseconds (mS)



## **Ordering Information:**

| Device         | Packing                 |  |
|----------------|-------------------------|--|
| Part Number-TP | Tape&Reel: 7.5Kpcs/Reel |  |

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