

NOT RECOMMENDED FOR NEW DESIGNS
USE GS1A-LTP~GS1M-LTP or GS1AE~GS1ME Series



Micro Commercial Components
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GS1A THRU GS1M

1 Amp Silicon Rectifier 50 to 1000 Volts

Features

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- 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 Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| GS1A | GS1A | 50V | 35V | 50V |
| GS1B | GS1B | 100V | 70V | 100V |
| GS1D | GS1D | 200V | 140V | 200V |
| GS1G | GS1G | 400V | 280V | 400V |
| GS1J | GS1J | 600V | 420V | 600V |
| GS1K | GS1K | 800V | 560V | 800V |
| GS1M | GS1M | 1000V | 700V | 1000V |

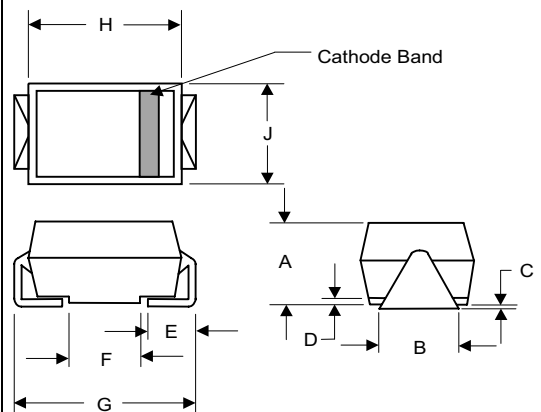
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|--------------------------------------|---|
| Average Forward current | $I_{F(AV)}$ | 1.0A | $T_a = 75^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 30A | 8.3ms, half sine, |
| Maximum Instantaneous Forward Voltage | V_F | 1.1V | $I_{FM} = 1.0A$; $T_J = 25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 10 μA 50 μA | $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 15pF | Measured at 1.0MHz, $V_R=4.0V$ |

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

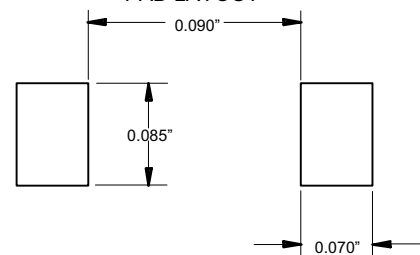
Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

DO-214AC (HSMA) (High Profile)



| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | .078 | .116 | 1.98 | 2.95 | |
| B | .067 | .089 | 1.70 | 2.25 | |
| C | .002 | .008 | .05 | .20 | |
| D | --- | .02 | --- | .51 | |
| E | .035 | .055 | .89 | 1.40 | |
| F | .065 | .096 | 1.65 | 2.45 | |
| G | .205 | .224 | 5.21 | 5.69 | |
| H | .160 | .180 | 4.06 | 4.57 | |
| J | .100 | .112 | 2.57 | 2.84 | |

SUGGESTED SOLDER PAD LAYOUT



GS1A thru GS1M

Figure 1
Typical Forward Characteristics

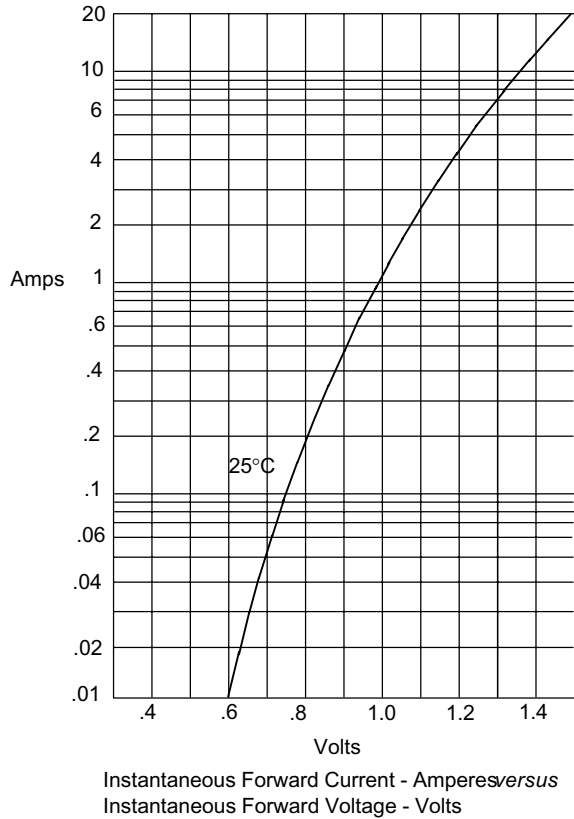


Figure 3
Maximum Overload Surge Current

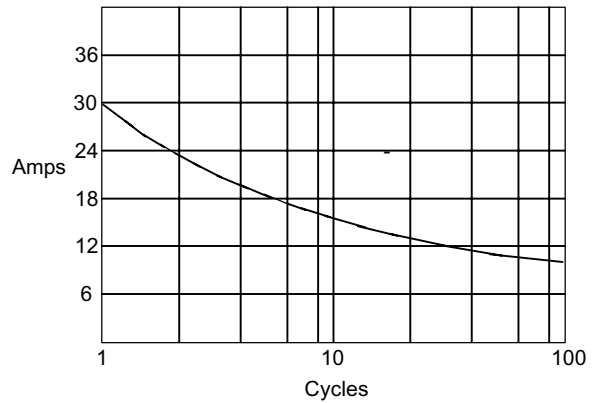


Figure 4
Forward Derating Curve

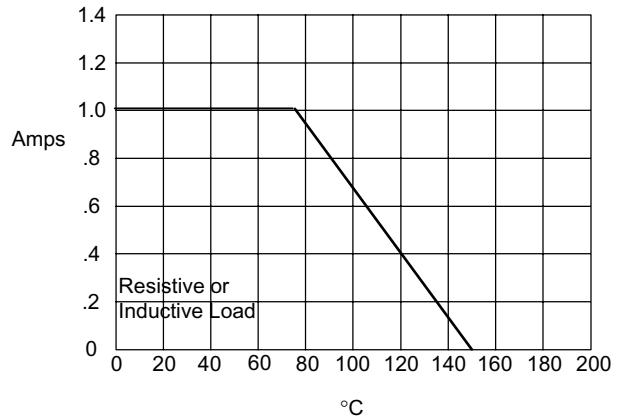
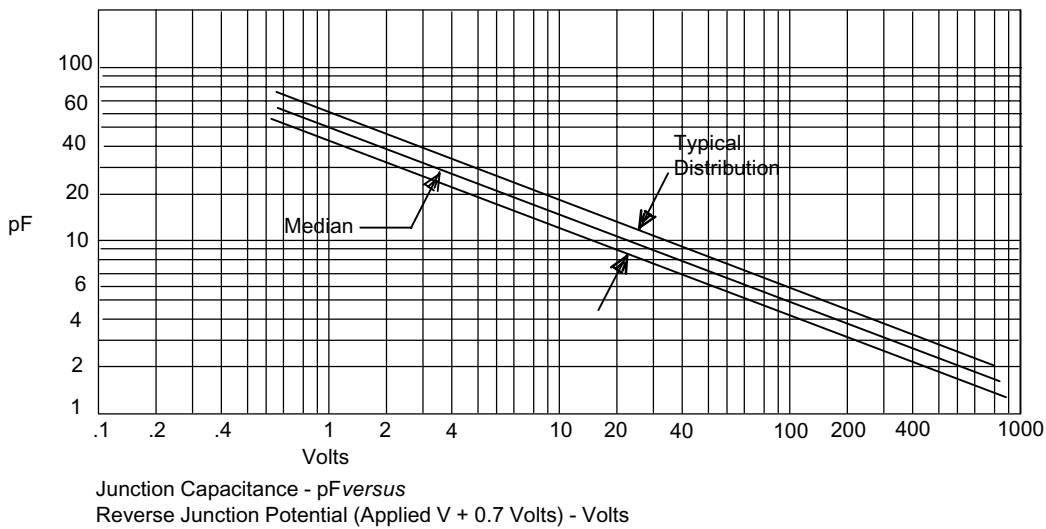
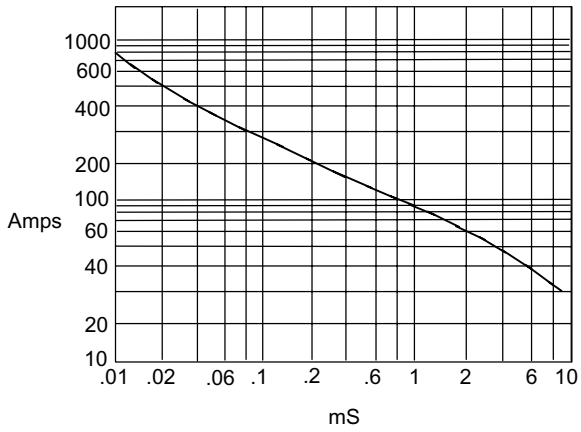


Figure 2
Junction Capacitance

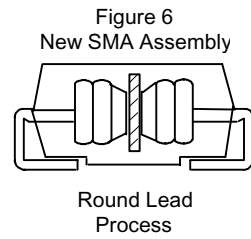


GS1A thru GS1M

Figure 5
Peak Forward Surge Current



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





Micro Commercial Components

Ordering Information :

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

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