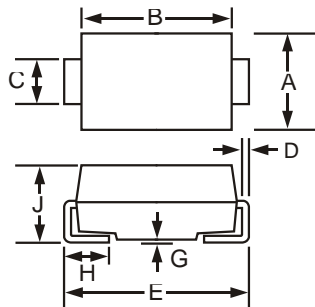


GS1A THRU GS1M

SURFACE MOUNT STANDARD RECOVERY RECTIFIER
VOLTAGE - 50 TO 1000 VOLTS CURRENT - 1.0 AMPERE

FEATURES

- For surface mount applications
- Glass passivated junction
- Low profile package
- Built-in strain relief
- Easy pick and place
- Low forward voltage drop
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering: 250°C/10 seconds at terminals



| SMA / DO-214AC | | |
|----------------------|-------|-------|
| Dim | Min | Max |
| A | 2.29 | 2.92 |
| B | 4.00 | 4.60 |
| C | 1.25 | 1.65 |
| D | 0.152 | 0.305 |
| E | 4.80 | 5.59 |
| G | 0.051 | 0.203 |
| H | 0.76 | 1.52 |
| J | 2.00 | 2.62 |
| All Dimensions in mm | | |

MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic
 Terminals: Solder plated, solderable per MIL-STD-202, method 208
 Polarity: Color band denotes cathode end
 Standard Package: 12mm tape (EIA STD EIA-481)
 Weight: 0.002 ounce, 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified
 Single phase half wave 60 Hz, resistive or inductive load
 For capacitive load, derate current by 20%

| | SYMBOL | GS1A | GS1B | GS1D | GS1G | GS1J | GS1K | GS1M | UNITS |
|---|------------------------------------|-------------|------|------|------|------|------|------|--------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Current at $T_L = 100^\circ\text{C}$ | $I_{(AV)}$ | 1.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 30 | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage at 1.0A | V_F | 1.1 | | | | | | | Volts |
| Maximum DC Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 125^\circ\text{C}$ | I_R | 5 50 | | | | | | | μA |
| Typical Junction Capacitance (NOTE 1) | C_J | 12 | | | | | | | pF |
| Maximum Thermal Resistance (NOTE 2) | $R_{\theta JA}$ $R_{\theta JL}$ | 75 30 | | | | | | | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts
2. P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

GS1A THRU GS1M

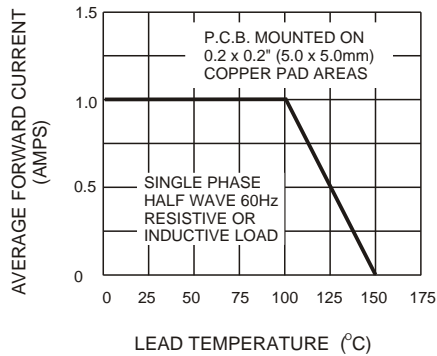


Figure 1. Typical Forward Current Derating Curve

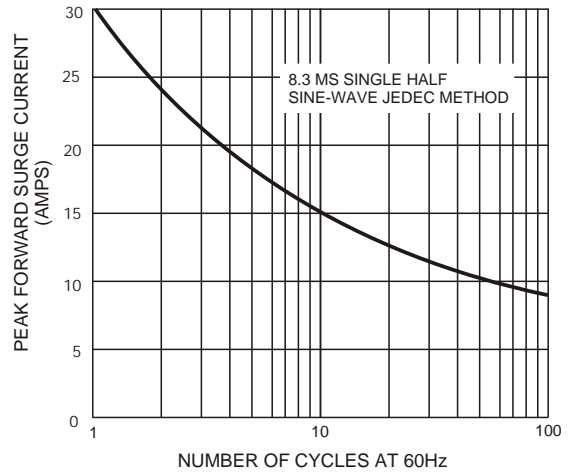


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

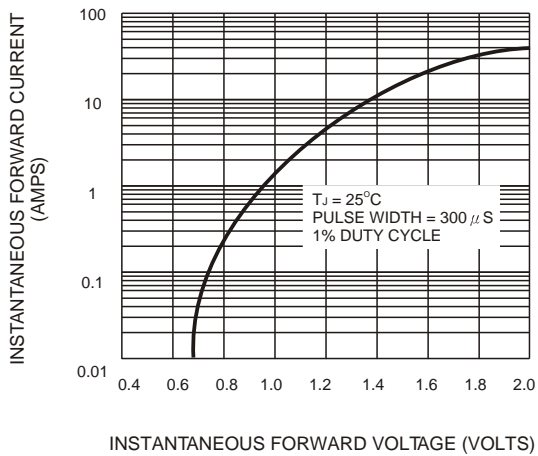


Figure 3. Typical Instantaneous Forward Characteristics

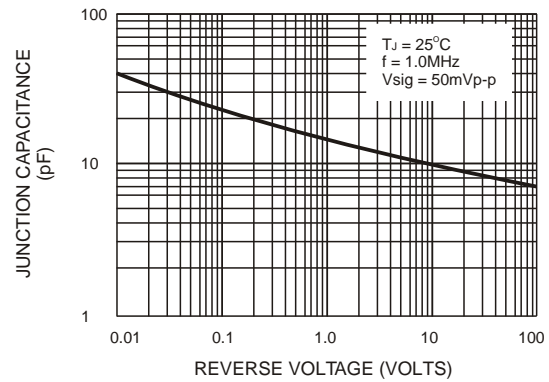


Figure 4. Typical Junction Capacitance

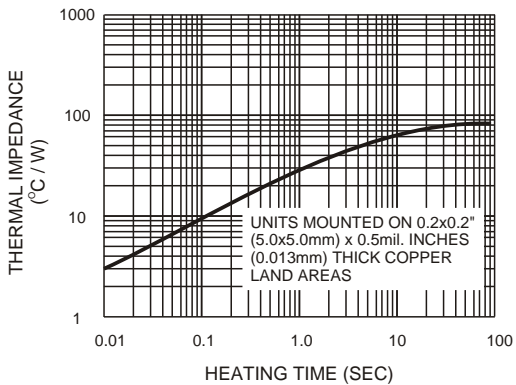


Figure 5. Transient Thermal Impedance

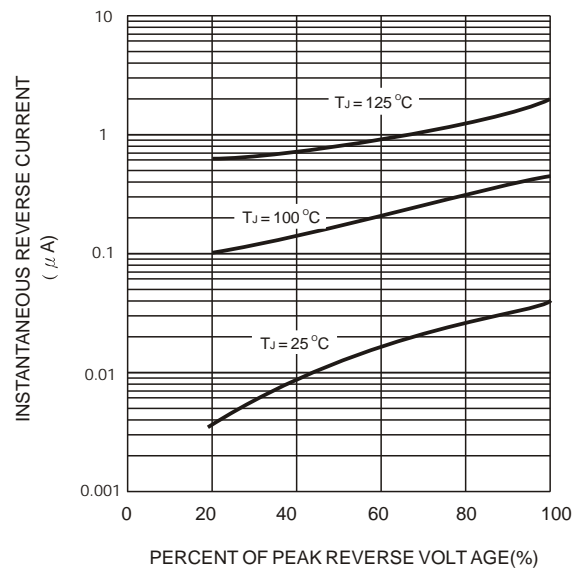


Figure 6. Typical Reverse Characteristics