



SEMICONDUCTOR

DATA SHEET

G1A THRU G1M

GPP SURFACE MOUNT RECTIFIER

VOLTAGE- 50 to 1000 Volts CURRENT - 1.0 Amperes



FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing
- Low Forward Drop
- High temperature soldering : 260°C /10 seconds at terminals

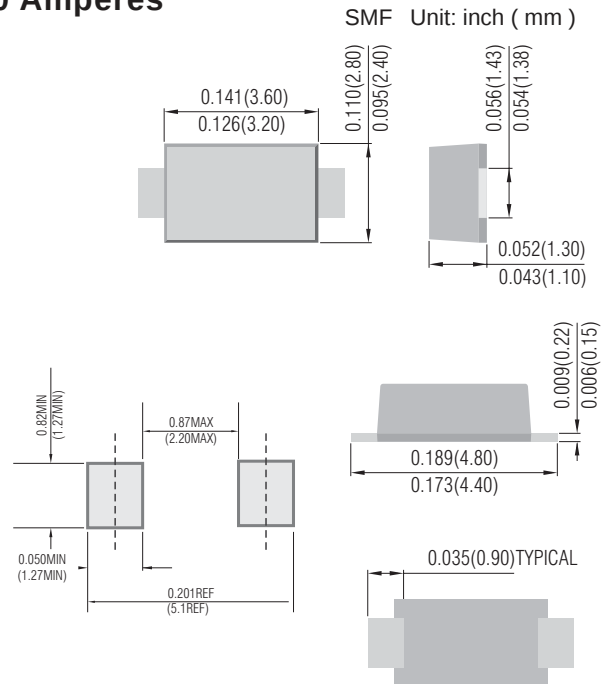
MECHANICAL DATA

Case: SMF molded plastic

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Indicated by cathode band

Standard packaging: 12mm tape (EIA-481)



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%.

	SYMBOLS	G1A	G1B	G1D	G1G	G1J	G1K	G1M	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current, at $T_L=75^\circ\text{C}$	$I(AV)$	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.1							V
Maximum DC Reverse Current $T_A=25^\circ\text{C}$	I_R	5.0							μA
at Rated DC Blocking Voltage $T_A=125^\circ\text{C}$		100							μA
Maximum Reverse Recovery Time(Note 1) $T_J=25^\circ\text{C}$	T_{RR}	2.5							μs
Typical Junction Capacitance (Note 2)	C_J	12							pF
Maximum Thermal Resistance(Note 3)	$R_{\theta JA}$	75							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$

NOTES:

1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
2. Measured at 1 MHz and applied $V_r=4.0$ volts.
3. 8.0 mm² (.013mm thick) land areas.

RATING AND CHARACTERISTIC CURVES

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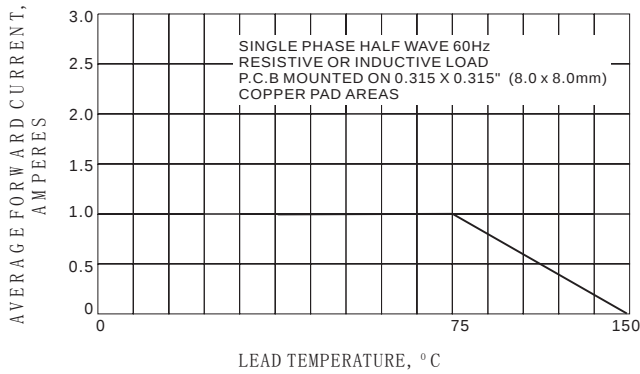


Fig. 1-FORWARD CURRENT DERATING CURVE

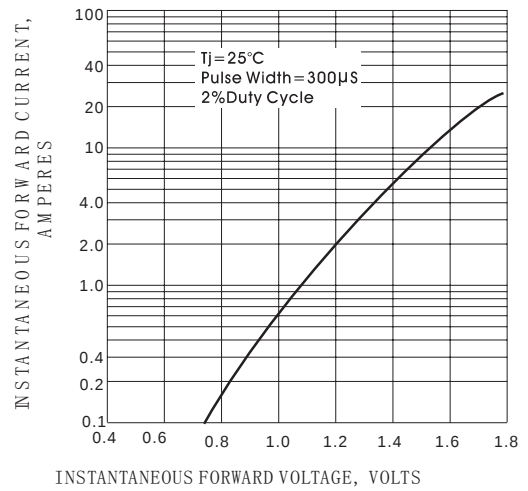


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

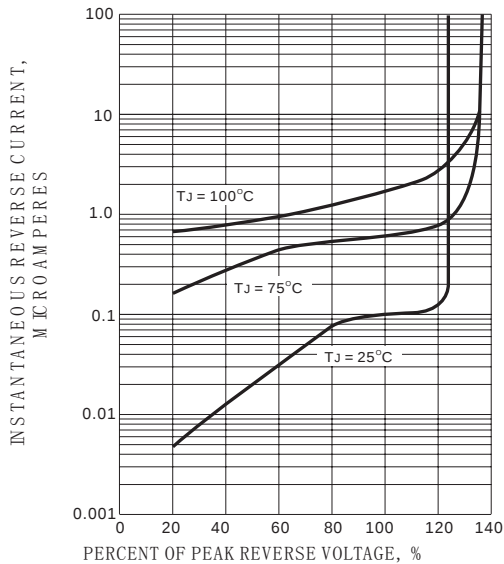


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

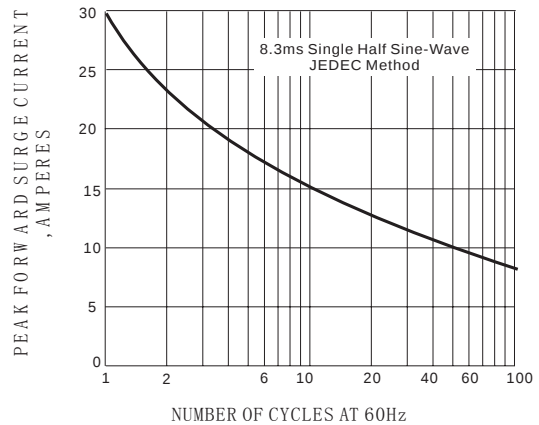


Fig. 4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

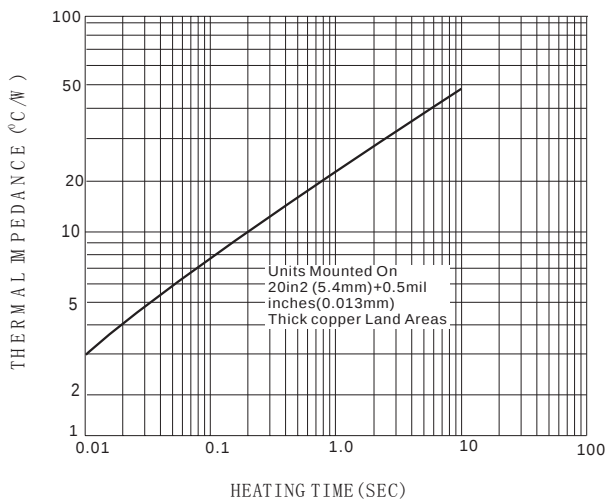


Fig. 5-TRANSIENT THERMAL IMPEDANCE

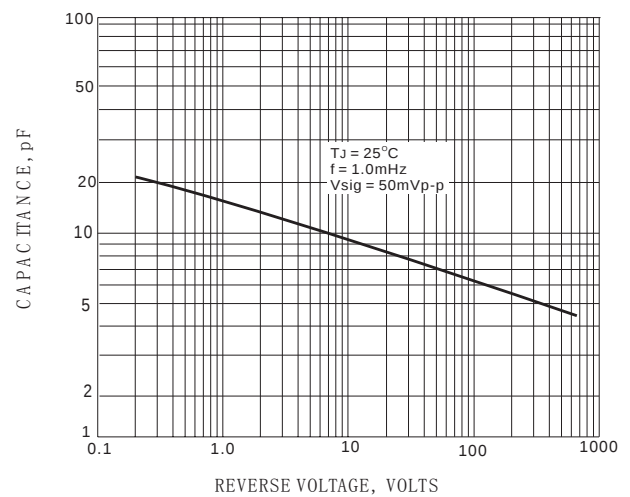


Fig. 6-TYPICAL JUNCTION CAPACITANCE