



SEMICONDUCTOR

# DATA SHEET

## G2A THRU G2M

### GPP SURFACE MOUNT RECTIFIER

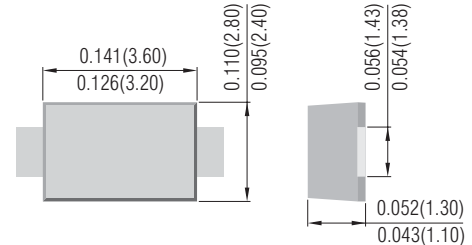
VOLTAGE- 50 to 1000 Volts CURRENT - 2.0 Amperes



SMF Unit: inch ( mm )

#### 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
- Low Forward Drop
- High temperature soldering : 260°C /10 seconds at terminals



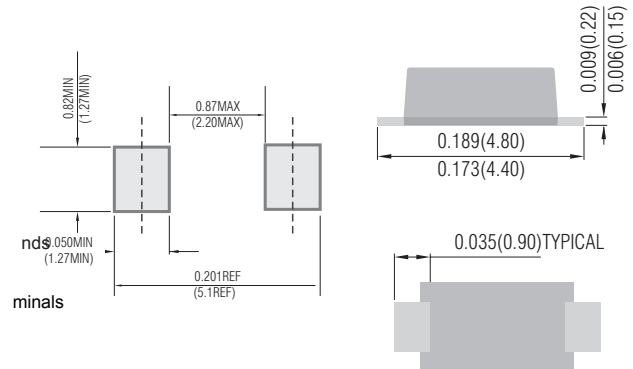
#### MECHANICAL DATA

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	G2A	G2B	G2D	G2G	G2J	G2K	G2M	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 $T_L=75^\circ\text{C}$	$I(AV)$	2.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	60							A
Maximum Instantaneous Forward Voltage at 2.0A	$V_F$	1.1							V
Maximum DC Reverse Current $T_A=25^\circ\text{C}$	$I_R$	5.0							$\mu\text{A}$
at Rated DC Blocking Voltage $T_A=125^\circ\text{C}$		100							$\mu\text{A}$
Maximum Reverse Recovery Time(Note 1) $T_J=25^\circ\text{C}$	$T_{RR}$	2.5							$\mu\text{s}$
Typical Junction Capacitance (Note 2)	$C_J$	12							pF
Maximum Thermal Resistance(Note 3)	$R_{\theta JA}$	75							$^\circ\text{C}/\text{W}$
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 mm<sup>2</sup> ( .013mm thick ) land areas.

# RATING AND CHARACTERISTIC CURVES

## G2A THRU G2M

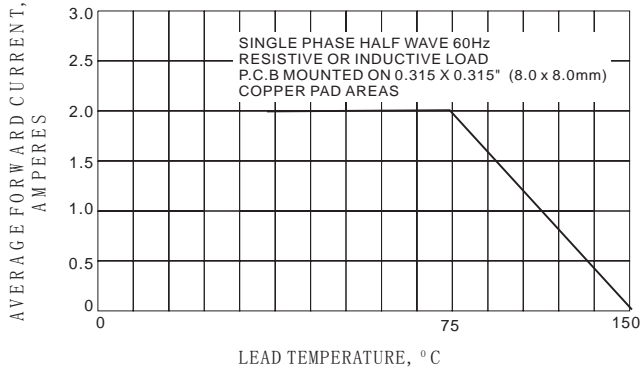


Fig. 1-FORWARD CURRENT DERATING CURVE

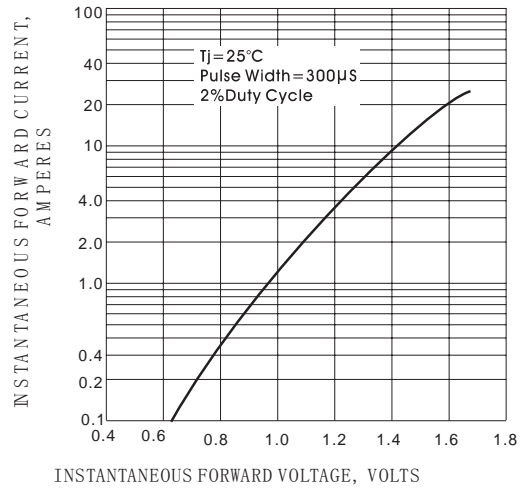


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

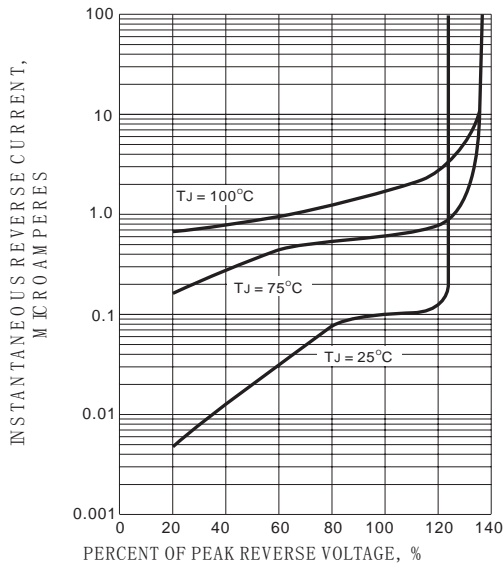


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

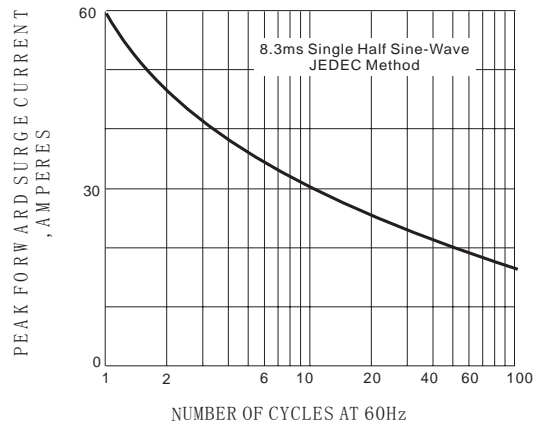


Fig. 4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

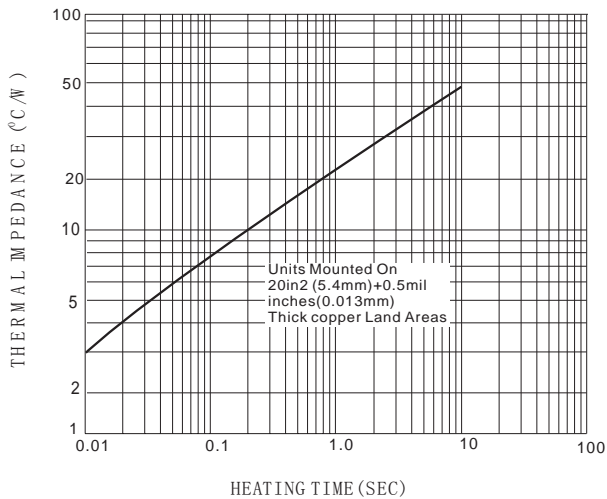


Fig. 5-TRANSIENT THERMAL IMPEDANCE

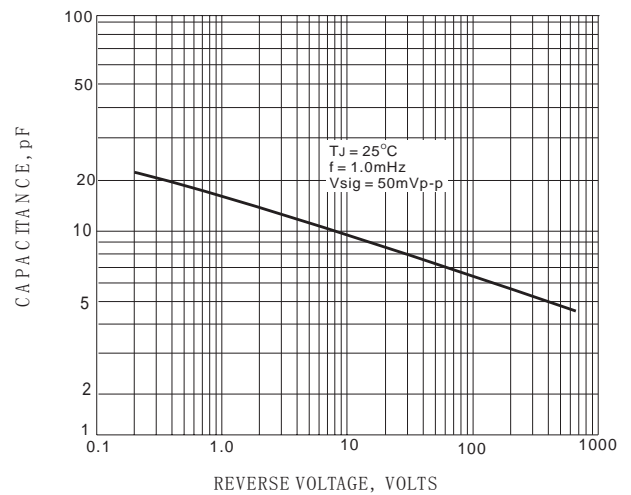


Fig. 6-TYPICAL JUNCTION CAPACITANCE