

GS1AWG~GS1MWG

SURFACE MOUNT GENERAL PURPOSE RECTIFIER

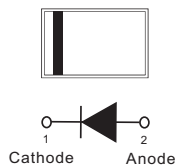
VOLTAGE 50 to 1000 Volt **CURRENT** 1 Ampere

FEATURES

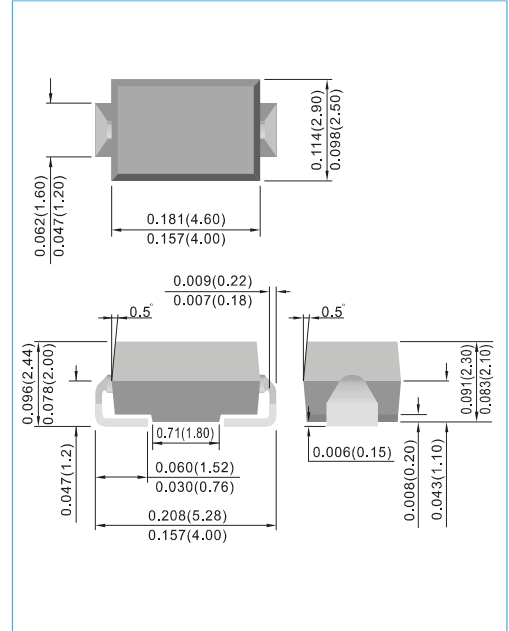
- For surface mounted applications in order to optimize board space
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Low Forward Drop
- High temperature soldering : 260°C /10 seconds at terminals
- Glass Passivated Junction
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: SMA(W) molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Indicated by cathode band
- Standard packaging: 12 mm tape (EIA-481)
- Weight: 0.002 ounces, 0.068 grams



SMA(W) Unit : inch(mm)



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%.

PARAMETER	SYMBOL	GS1AWG	GS1BWG	GS1DWG	GS1GWG	GS1JWG	GS1KWG	GS1MWG	UNITS
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 Current	$I_{F(AV)}$	1							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Maximum Forward Voltage at 1A DC	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	1							μA
Typical Junction Capacitance Measured at 1MHz and applied $V_R=4V$	C_J	7							pF
Typical Junction Resistance (Note 1)	$R_{\theta JA}$	150							$^{\circ}C / W$
(Note 2)	$R_{\theta JL}$	15							
(Note 3)	$R_{\theta JC}$	4.4							
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^{\circ}C$

Notes: 1. Mounted on a FR4 PCB, single-sided copper, mini pad.
2. Mounted on a FR4 PCB, single-sided copper, with 76.2 x 114.3mm copper pad area.
3. Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area.

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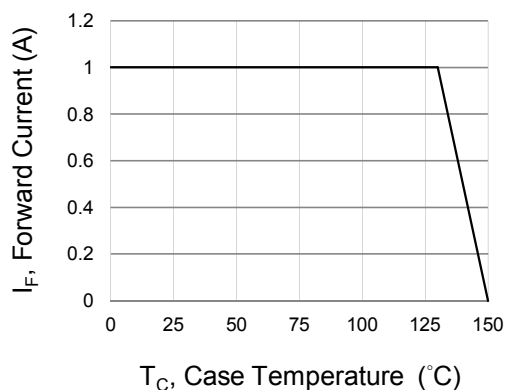


Fig.1 Forward Current Derating Curve

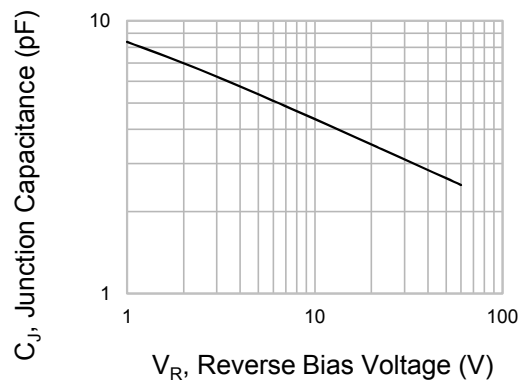


Fig.2 Typical Junction Capacitance

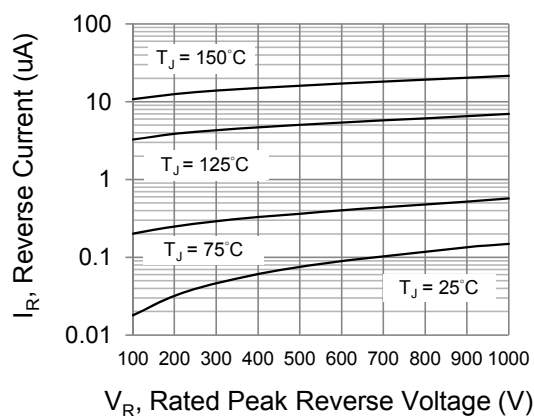


Fig.3 Typical Reverse Characteristics

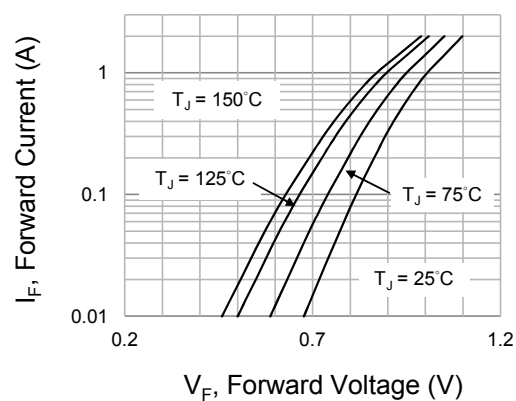


Fig.4 Typical Forward Characteristics

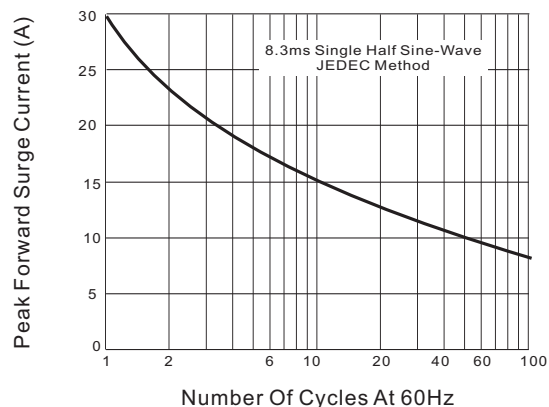
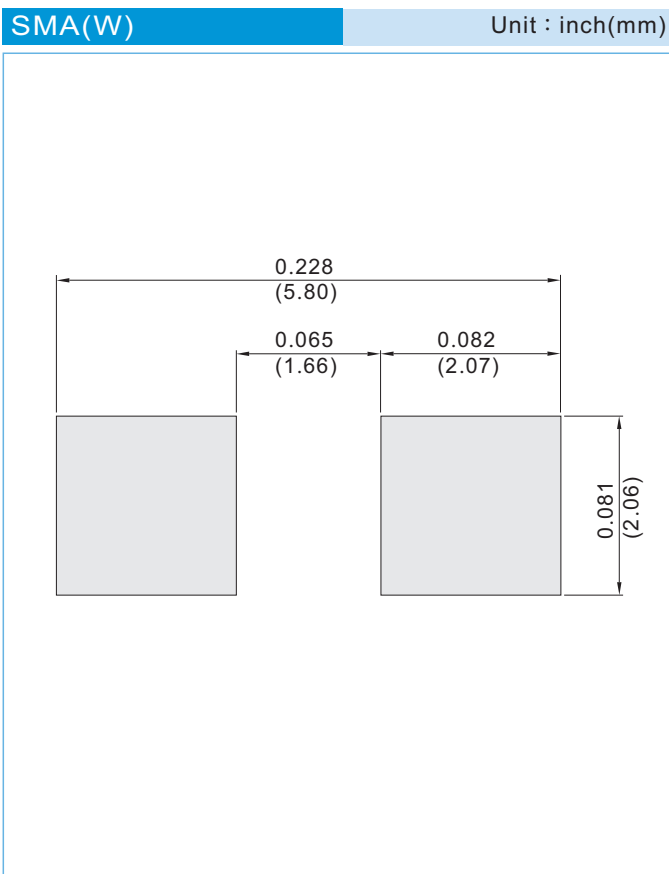


Fig.5-Maximum Non-Repetitive Peak Forward Surge Current

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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 7.5K per 13" plastic Reel
 - T/R - 1.8K per 7" plastic Reel

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