

GS1A-AU ~ GS1M-AU Series

SURFACE MOUNT RECTIFIER

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

SMA

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 chip junction
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case : JEDEC DO-214AC molded plastic
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Standard packaging : 12mm tape (EIA-481)
- Approx. Weight : 0.0679 grams



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	GS1A-AU	GS1B-AU	GS1D-AU	GS1G-AU	GS1J-AU	GS1K-AU	GS1M-AU	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}	35							A	
Maximum Forward Voltage at 1A	V_F	1.1							V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R								$T_J=25^{\circ}C$	μA
									$T_J=125^{\circ}C$	
Typical Junction Capacitance (Note 1)	C_J	12							pF	
Typical Junction Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$								16	$^{\circ}C / W$
									50	
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^{\circ}C$	

NOTES: 1. Measured at 1 MHz and applied $V_R = 4$ volts.
2. Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area.

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RATING AND CHARACTERISTIC CURVES

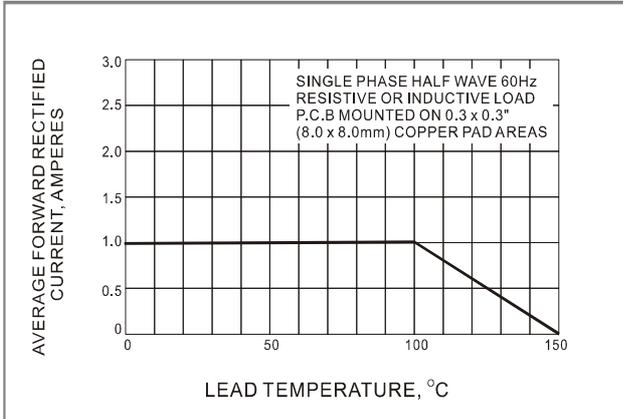


Fig.1 FORWARD CURRENT DERATING CURVE

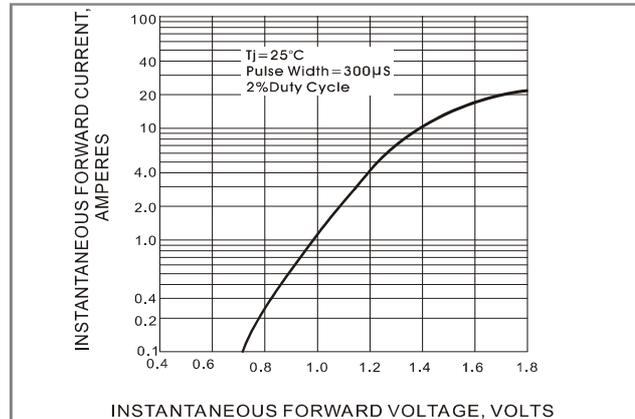


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

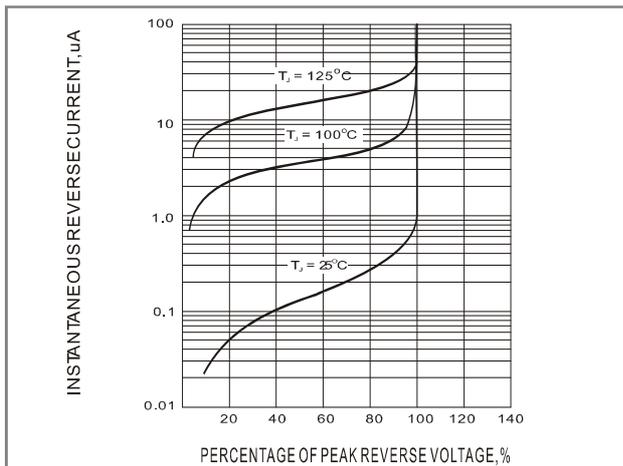


Fig.3-TYPICAL REVERSE CHARACTERISTIC

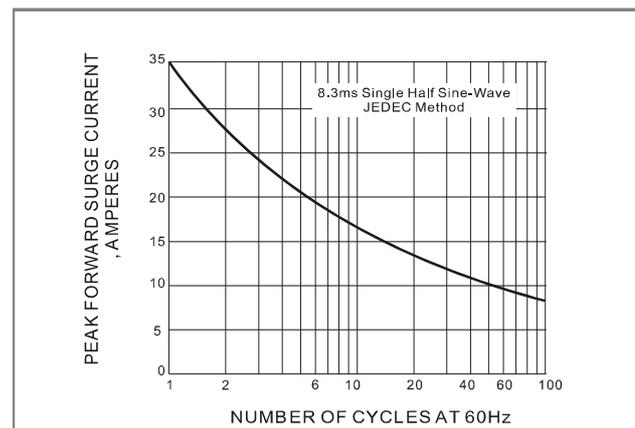


Fig.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

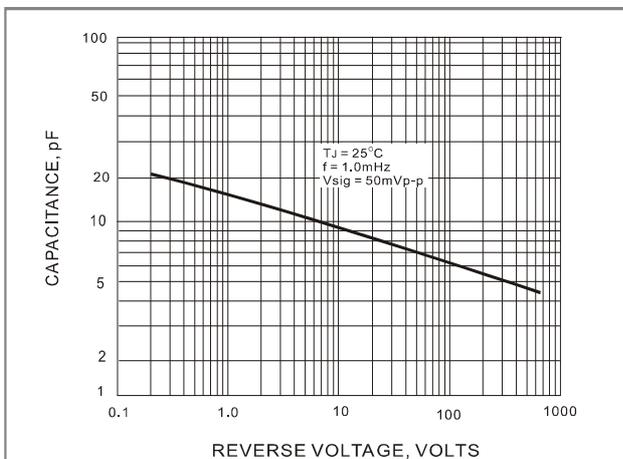


Fig.5 TYPICAL JUNCTION CAPACITANCE

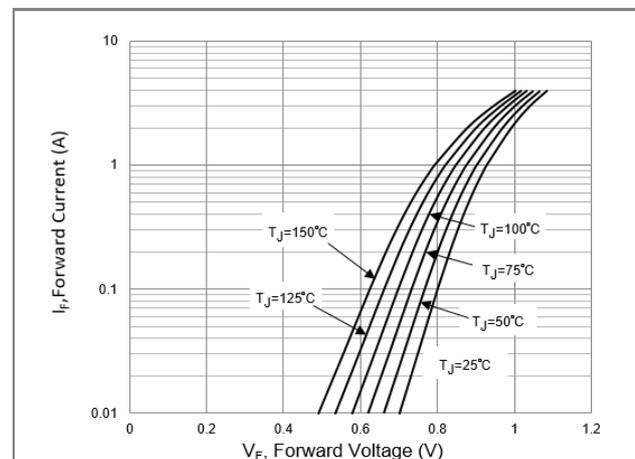


Fig.6 GS1G-AU TYPICAL FORWARD CHARACTERISTICS

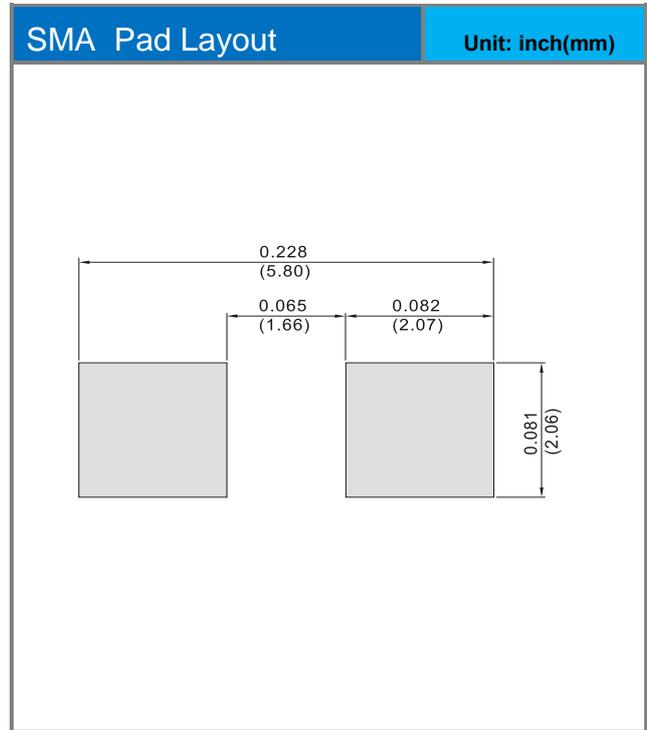
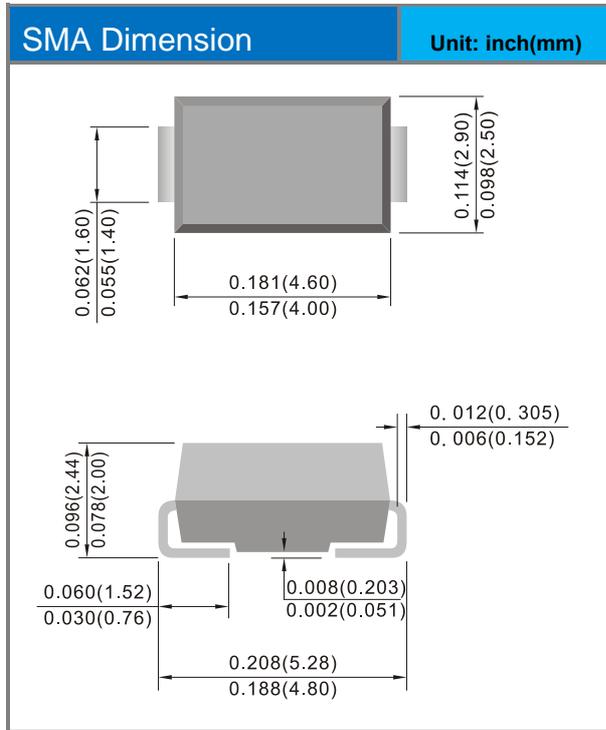
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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
GS1A-AU	SMA	1.8K pcs / 7" reel	GS1A
GS1A-AU	SMA	7.5K pcs / 13" reel	GS1A
GS1B-AU	SMA	1.8K pcs / 7" reel	GS1B
GS1B-AU	SMA	7.5K pcs / 13" reel	GS1B
GS1D-AU	SMA	1.8K pcs / 7" reel	GS1D
GS1D-AU	SMA	7.5K pcs / 13" reel	GS1D
GS1G-AU	SMA	1.8K pcs / 7" reel	GS1G
GS1G-AU	SMA	7.5K pcs / 13" reel	GS1G
GS1J-AU	SMA	1.8K pcs / 7" reel	GS1J
GS1J-AU	SMA	7.5K pcs / 13" reel	GS1J
GS1K-AU	SMA	1.8K pcs / 7" reel	GS1K
GS1K-AU	SMA	7.5K pcs / 13" reel	GS1K
GS1M-AU	SMA	1.8K pcs / 7" reel	GS1M
GS1M-AU	SMA	7.5K pcs / 13" reel	GS1M

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Packaging Information & Mounting Pad Layout



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