



GS1A-AU~GS1M-AU

SURFACE MOUNT RECTIFIER

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

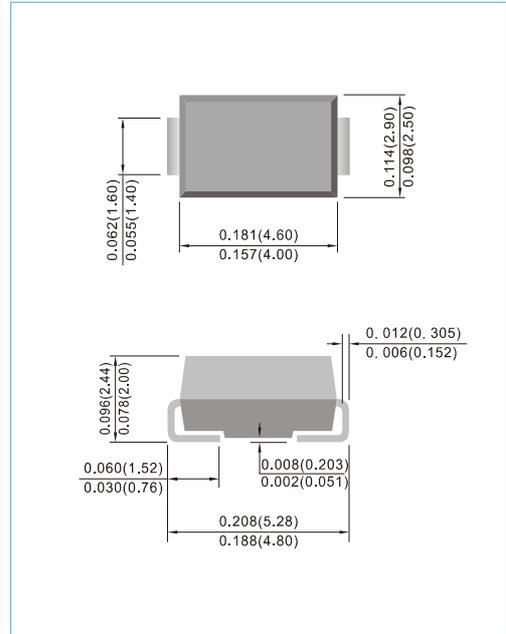
SMA / DO-214AC Unit : inch(mm)

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					1				μA
						50				
Typical Junction Capacitance (Note 1)	C_J					12				pF
Typical Junction Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$					16				°C / W
						50				
Operating and Storage Temperature Range	T_J, T_{STG}					-55 to +150			°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

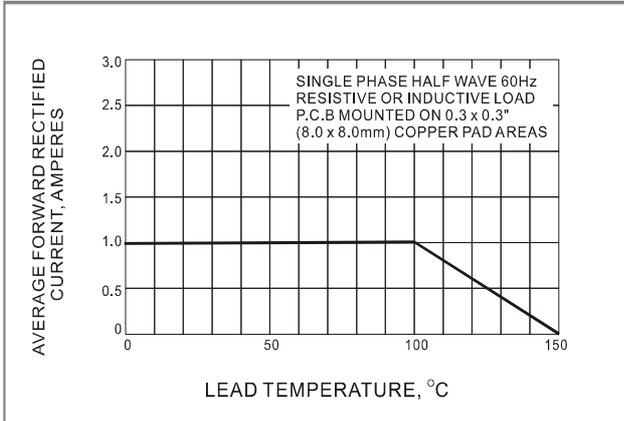


Fig.1 FORWARD CURRENT DERATING CURVE

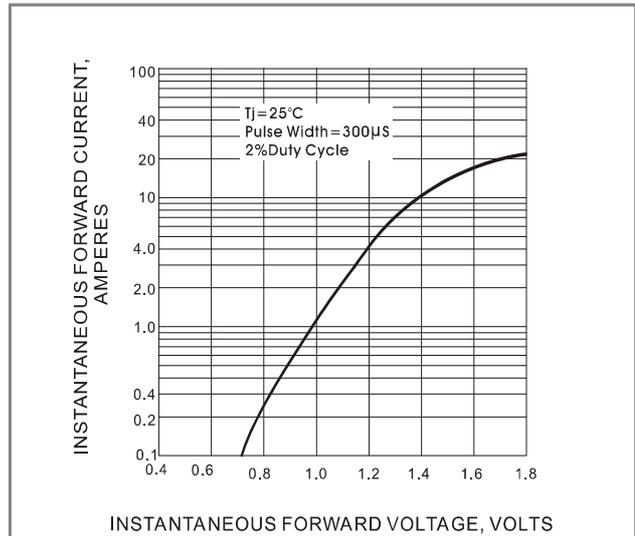


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

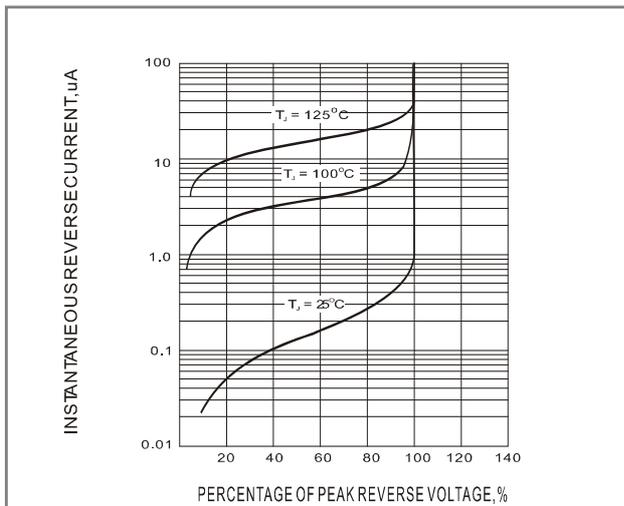


Fig.3-TYPICAL REVERSE CHARACTERISTIC

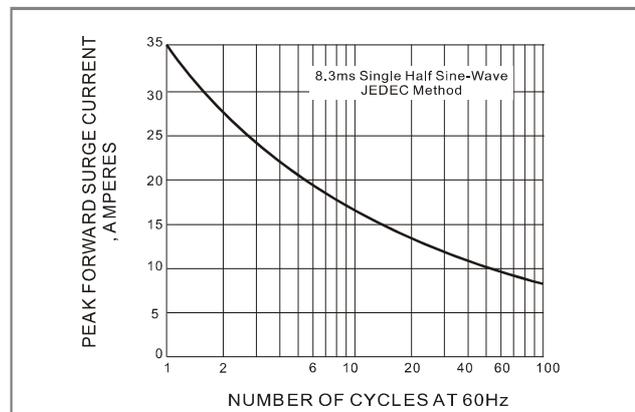


Fig.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

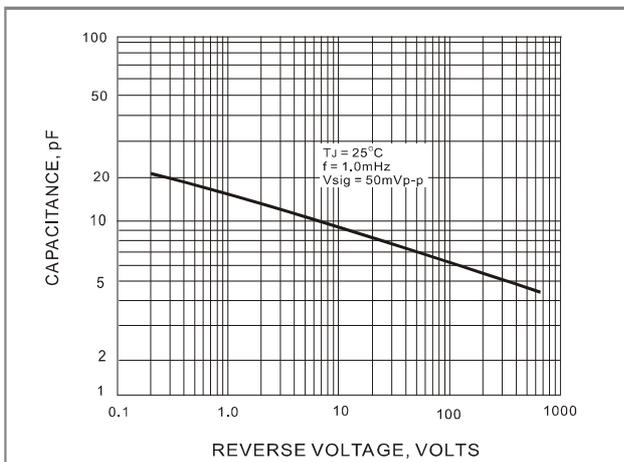
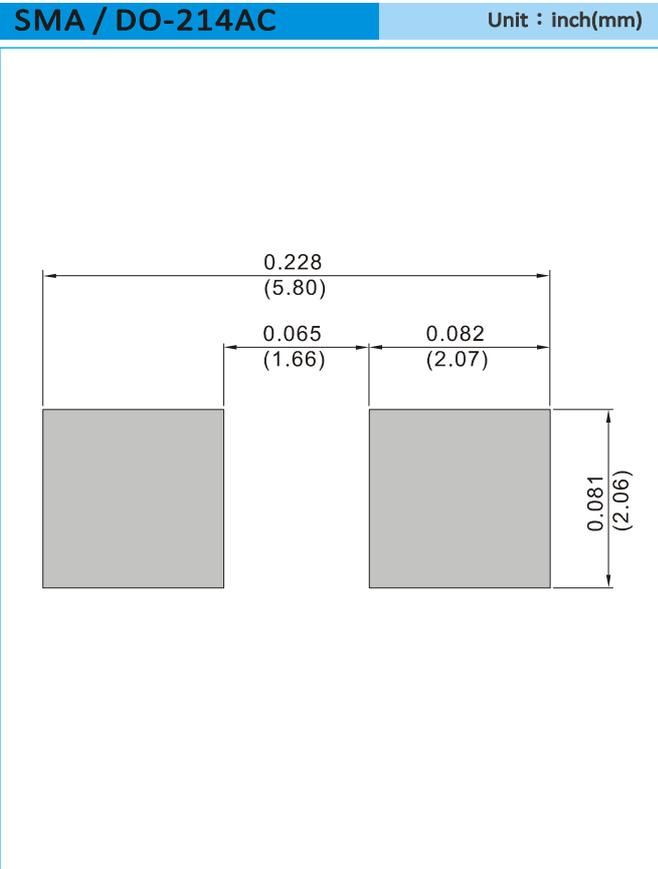


Fig.5 TYPICAL JUNCTION CAPACITANCE



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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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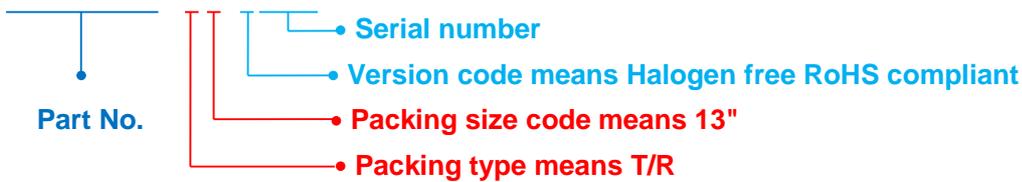
Part No._packing code_Version

GS1A-AU_R1_000A1

GS1A-AU_R2_000A1

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code X		Serial number XXXX
Packing type	1 st Code	Packing size code	2 nd Code	HSF Level	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	Halogen free RoHS compliant	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS compliant	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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