



### SURFACE MOUNT RECTIFIER

VOLTAGE 50 to 1000 Volt CURRENT 1 Ampere

### **FEATURES**

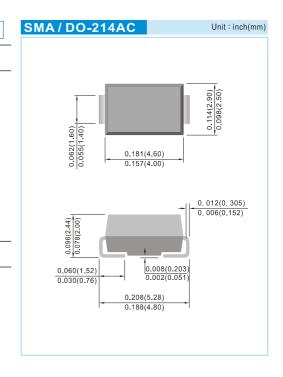
- For surface mounted applications in order to optimize board space
- · Easy pick and place
- Plastic package has underwriters laboratory flammability Classification 94V-O
- Low forward drop
- High temperature soldering : 260°C /10 seconds at terminals
- Glass passivated chip junction
- AEC-Q101 qualified
- 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)
- Weight: 0.002 ounces, 0.067 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 <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage		V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Current		I <sub>F(AV)</sub>	1							А
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load		I <sub>FSM</sub>	35						А	
Maximum Forward Voltage at 1A			1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>J</sub> =25°C T <sub>J</sub> =125°C	I <sub>R</sub>	1 50				μА			
Typical Junction Capacitance (Note 1)		C¹	12							pF
Typical Junction Resistance	(Note 2) (Note 3)	$R_{_{\theta JA}}$	37 150				°C /			
Operating and Storage Temperature Range		T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150							°C

NOTES:1. Measured at 1 MHz and applied  $V_{\text{R}}$  = 4 volts.

- 2. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area
- 3. Mounted on a FR4 PCB, single-sided copper, mini pad.

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### **RATING AND CHARACTERISTIC CURVES**

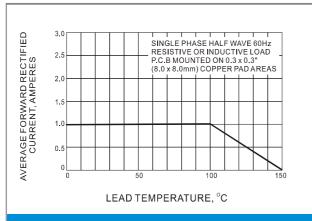


Fig.1 FORWARD CURRENT DERATING CURVE

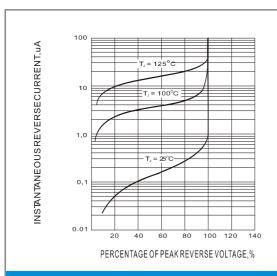


Fig.3-TYPICALREVERSECHARACTERISTIC

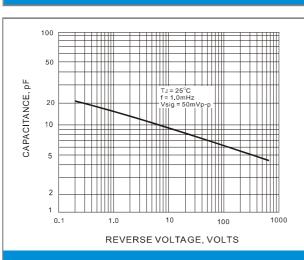


Fig. 5 TYPICAL JUNCTION CAPACITANCE

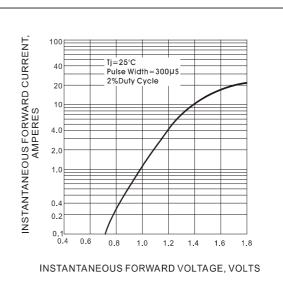


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

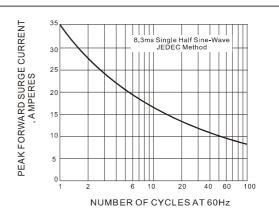
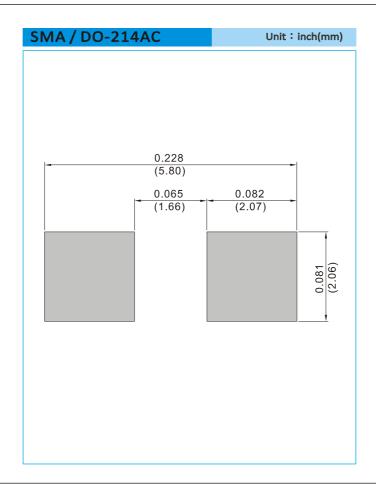


Fig.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT





### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

· Packing information

T/R - 7.5K per 13" plastic Reel

T/R - 1.8K per 7" plastic Reel

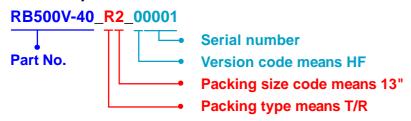




# Part No\_packing code\_Version

GS1A-AU\_R1\_000A1 GS1A-AU\_R2\_000A1

# For example:



Packing Code XX					Version Code XXXXX				
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code			
Tape and Ammunition Box (T/B)	Α	N/A	0	HF	0	serial number			
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number			
Bulk Packing (B/P)	В	13"	2						
Tube Packing (T/P)	Т	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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