



# GS1AW~GS1MW

# SURFACE MOUNT GENERAL PURPOSE RECTIFIER

VOLTAGE 50 to 1000 Volts CURRENT 1.0 Amperes

### **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
- Plastic Silicon Passivated
- In compliance with EU RoHS 2002/95/EC directives

### **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 ounce, 0.064 gram

# SMA -W Unit: mm 4.2 4.0 1.80 1.80 1.40 1.40 1.00 5.10 4.90

# 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	GS1AW	GS1BW	GS1DW	GS1GW	GS1JW	GS1KW	GS1MW	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	٧
Maximum Average Forward Current .375"(9.5mm) lead length at T <sub>L</sub> =50 °C	I <sub>F(AV)</sub>	1.0							А
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I <sub>FSM</sub>	30						А	
Maximum Forward Voltage at 1.0A DC	V <sub>F</sub>	1.1						V	
Maximum DC Reverse Current at T <sub>J</sub> =25°C Rated DC Blocking Voltage T <sub>J</sub> =125°C	I <sub>R</sub>	5.0 50						uA	
Typical Junction capacitance (Note 1)	C	12						pF	
Typical Junction Resistance(Note 2)	R <sub>eJL</sub>	30							°C / W
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  $V_r$  = 4.0 volts.

2.  $8.0 \text{ mm}^2$  ( .013mm thick ) land areas.

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### **RATING AND CHARACTERISTIC CURVES**

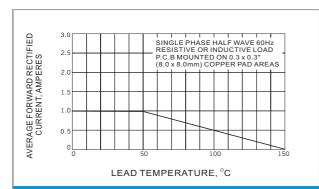


Fig.1 FORWARD CURRENT DERATING CURVE

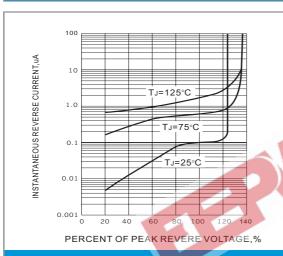


Fig.3 TYPICAL REVERSE CHARACTERISTICS

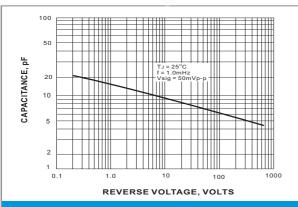


Fig.5 TYPICAL JUNCTION CAPACITANCE

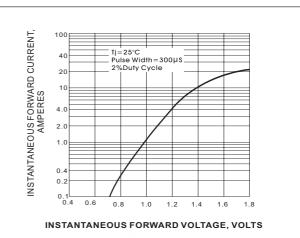


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

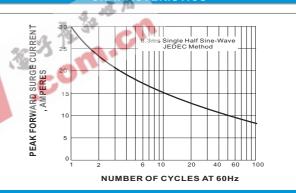


Fig.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

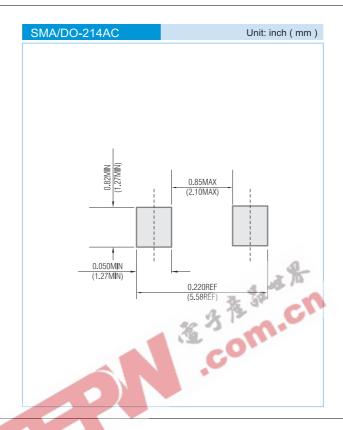
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### **MOUNTING PAD LAYOUT**



# **ORDER INFORMATION**

Packing information

T/R - 7.5K per 13" plastic Reel

T/R - 1.8Kper 7" plastic Reel

## **LEGAL STATEMENT**

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