

## GS1ADWG SERIES

### SURFACE MOUNT GENERAL PURPOSE RECTIFIER

**VOLTAGE** 50~1000 Volts **CURRENT** 1 Amperes

**SMA(W)**

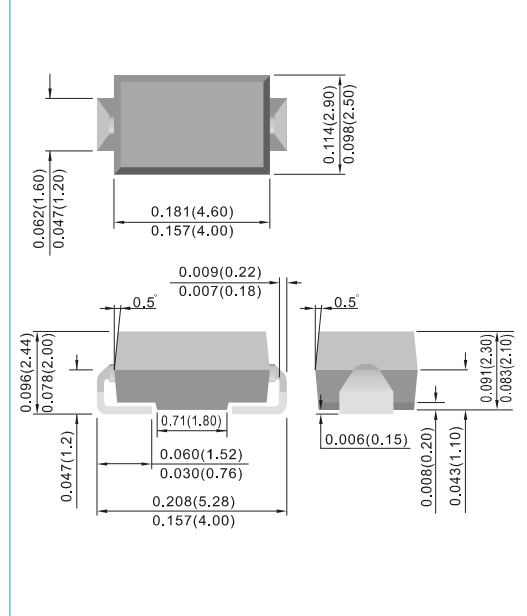
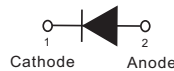
Unit : inch(mm)

#### FEATURES

- For surface mounted applications
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low forward drop
- High temperature soldering : 260°C /10 seconds at terminals
- Glass Passivated Junction
- Lead free in comply with EU RoHS 2011/65/EU directives
- Green molding compound as per IEC61249 Std. . (Halogen Free)

#### 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



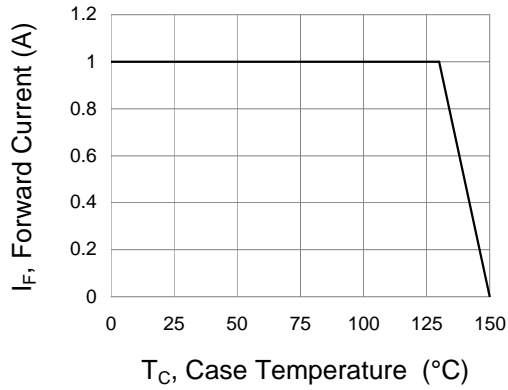
### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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%.

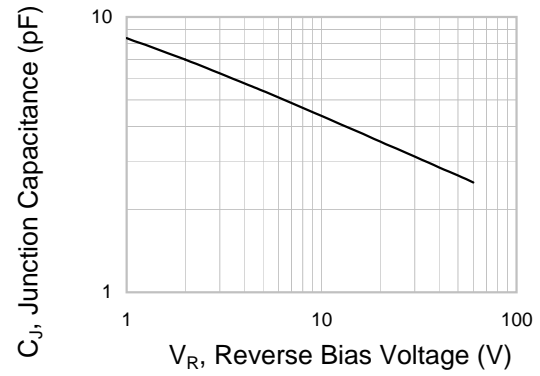
PARAMETER	SYMBOL	GS1ADWG	GS1BDWG	GS1DDWG	GS1GDWG	GS1JDWG	GS1KDWG	GS1MDWG	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_R$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current	$I_{F(AV)}$	1							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	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							$\mu A$
Maximum Reverse Recovery Time (Note 3)	$T_{RR}$	1000							nS
Minimum Reverse Recovery Time (Note 3)	$T_{RR}$	500							nS
Typical Junction Capacitance ( $V_R=4V, f=1MHz$ )	$C_J$	7							pF
Typical Junction Resistance (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	150 30							$^{\circ}C / W$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^{\circ}C$

NOTES : 1. Mounted on an FR4 PCB, single-sided copper, mini pad.  
2. Mounted on an FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.  
3.Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1A$ , Recover to 0.25A.

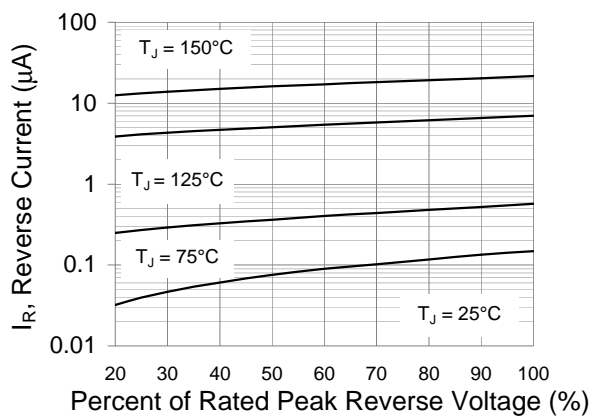
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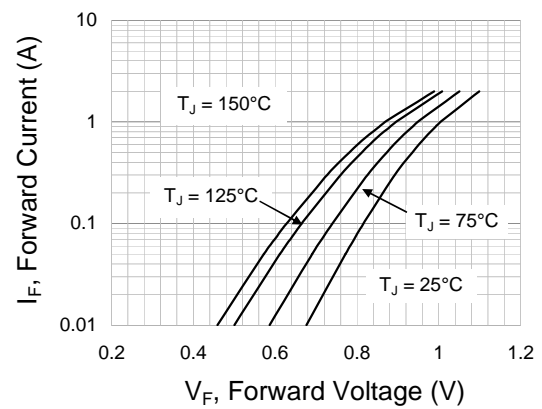
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



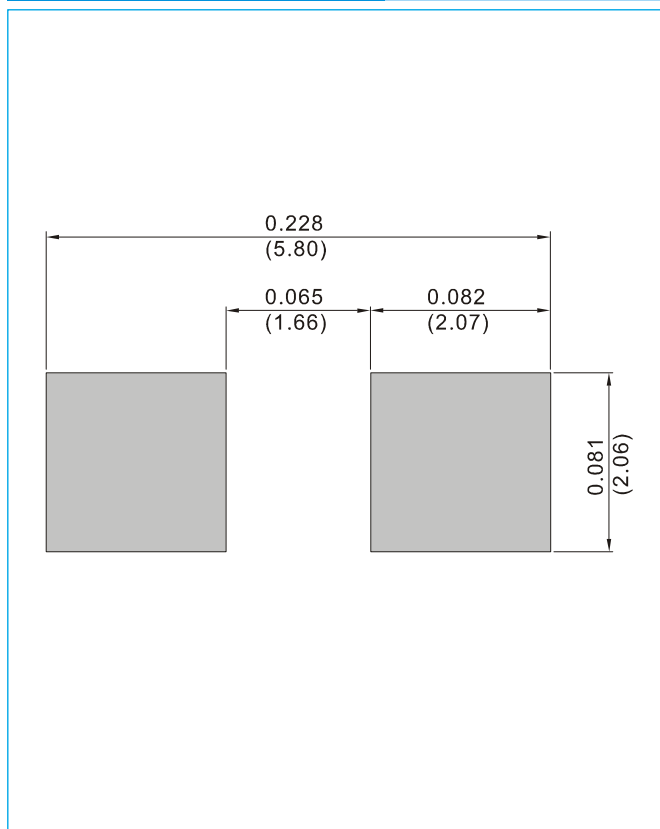
**Fig.4 Typical Forward Characteristics**

## GS1ADWG SERIES

### MOUNTING PAD LAYOUT

**SMA(W)**

Unit : inch(mm)



### ORDER INFORMATION

- Packing information

T/R - 7.5K per 13" plastic Reel

T/R - 1.8K per 7" plastic Reel

## GS1ADWG SERIES

### Part No\_packing code\_Version

GS1ADWG\_R1\_00001

GS1ADWG\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXXX</b>		
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)	<b>A</b>	N/A	<b>0</b>	HF	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	RoHS	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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