

# GS1A THRU GS1M

## SURFACE MOUNT GENERAL RECTIFIER

Reverse Voltage – 50 to 1000 V

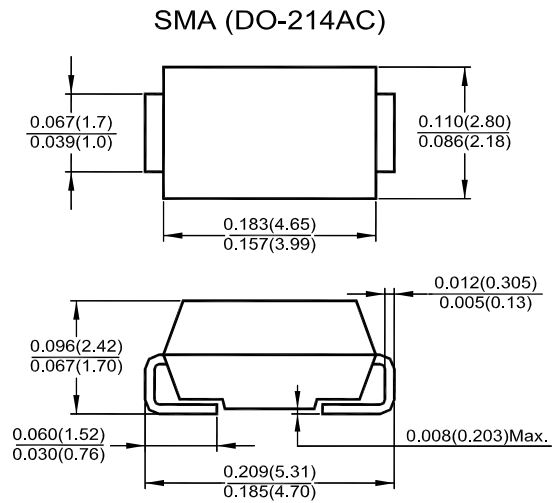
Forward Current – 1 A

### Features

- For surface mounted applications
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0

### Mechanical Data

- **Case:** SMA (DO-214AC), molded plastic
- **Terminals:** Solder plated, solderable per MIL-STD-750 method 2026
- **Polarity:** Color band denotes cathode band
- **Mounting position:** Any



Dimensions in inches and (millimeters)

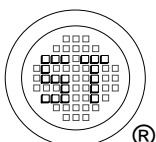
### Absolute Maximum Ratings and Characteristics

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	Symbols	GS1A	GS1B	GS1D	GS1G	GS1J	GS1K	GS1M	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 Rectified Current at $T_L = 110^\circ\text{C}$	$I_{(AV)}$	1							A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	30							A
Maximum Instantaneous Forward Voltage at 1A	$V_F$	1.1							V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 100^\circ\text{C}$	$I_R$	5							$\mu\text{A}$
Typical Junction Capacitance <sup>1)</sup>	$C_J$	15							pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	75							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_S$	- 65 to+ 175							$^\circ\text{C}$

<sup>1)</sup> Measured at 1 MHz and applied  $V_R = 4$  V.

<sup>2)</sup> P.C.B. mounted with 0.2 x 0.2" ( 5 X 5 mm) copper pad areas.



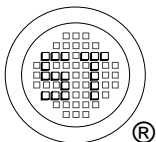
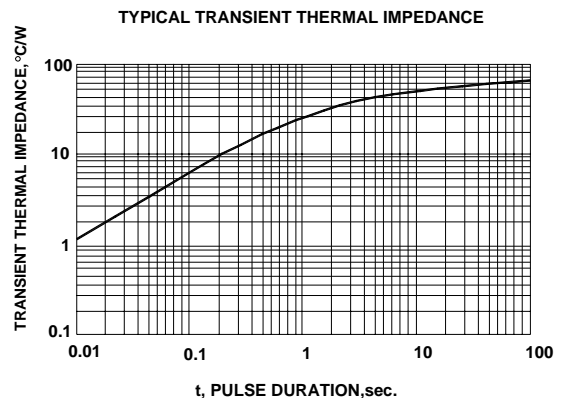
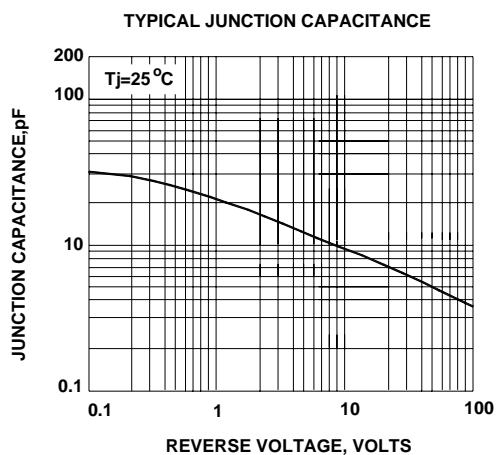
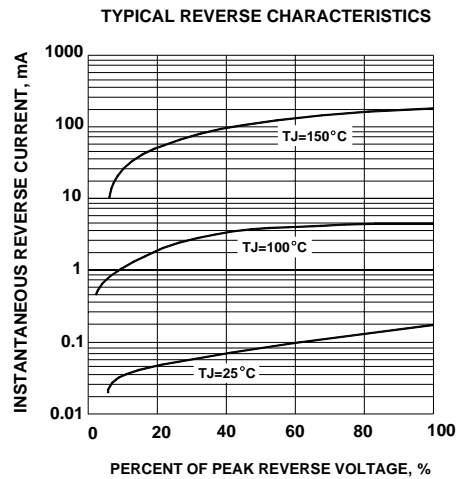
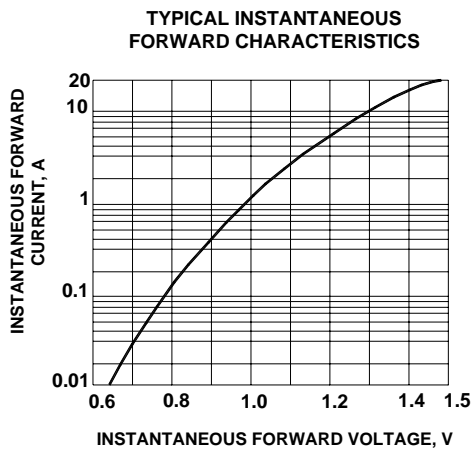
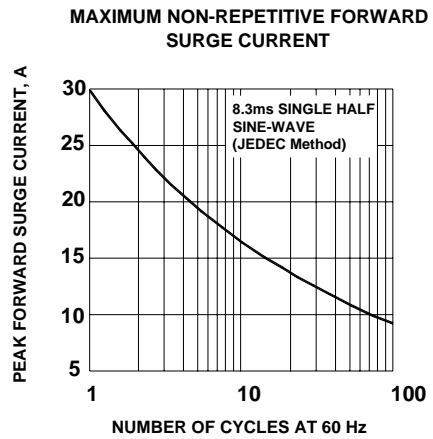
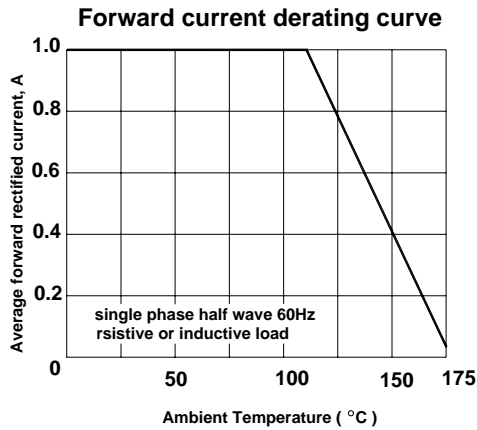
**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 14/04/2008

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ISO/TS 16949:2002  
 Certificate No. 05103



ISO 14001:2004  
 Certificate No. 7116



ISO 9001:2000  
 Certificate No. 0506098