

# GS1A THRU GS1M

## SURFACE MOUNT GENERAL RECTIFIER

Reverse Voltage - 50 to 1000 V

Forward Current - 1 A

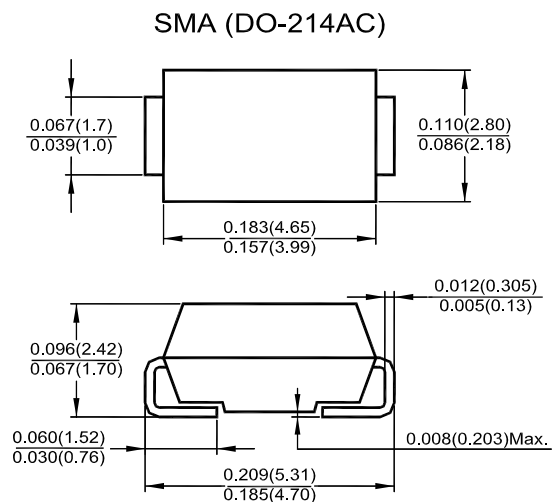
### Features

- 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



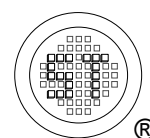
Dimensions in inches and (millimeters)

### 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 $T_L = 130^\circ\text{C}$	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load	$I_{FSM}$	30							A
Maximum Instantaneous Forward Voltage at 1 A	$V_F$	1.1							V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	$I_R$	5 50							$\mu\text{A}$
Typical Thermal Resistance, Junction to Ambient <sup>1)</sup>	$R_{\theta JA}$	95							$^\circ\text{C/W}$
Typical Thermal Resistance, Junction to Terminal <sup>1)</sup>	$R_{\theta JL}$	22							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{Stg}$	- 55 to + 150							$^\circ\text{C}$

<sup>1)</sup> P.C.B. mounted with 0.2 x 0.2" ( 5 X 5 mm) copper pad areas.



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FIG.1: FORWARD CURRENT DERATING CURVE

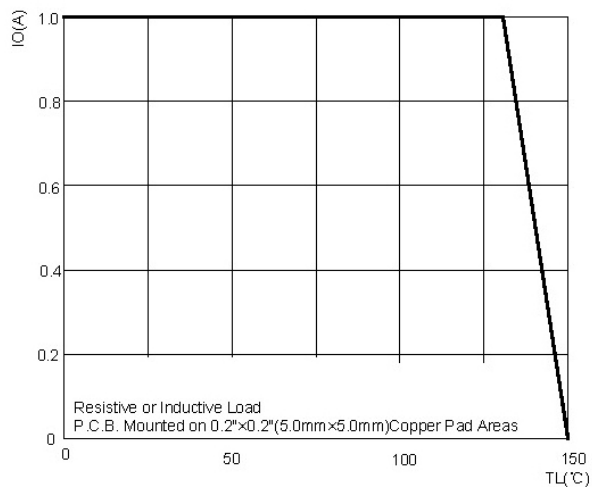


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

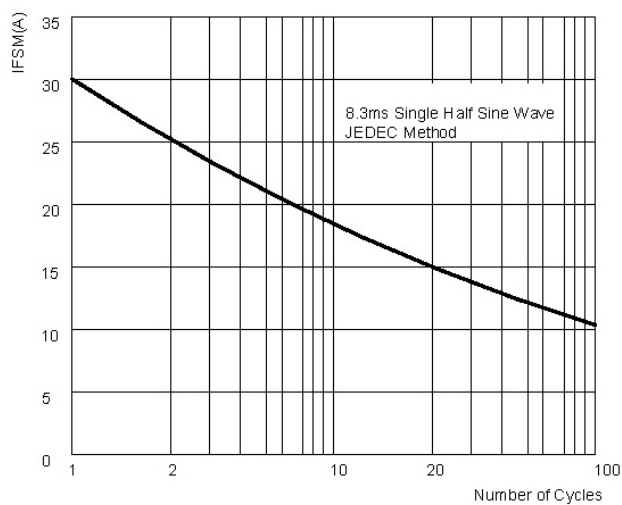


FIG.3: TYPICAL FORWARD CHARACTERISTICS

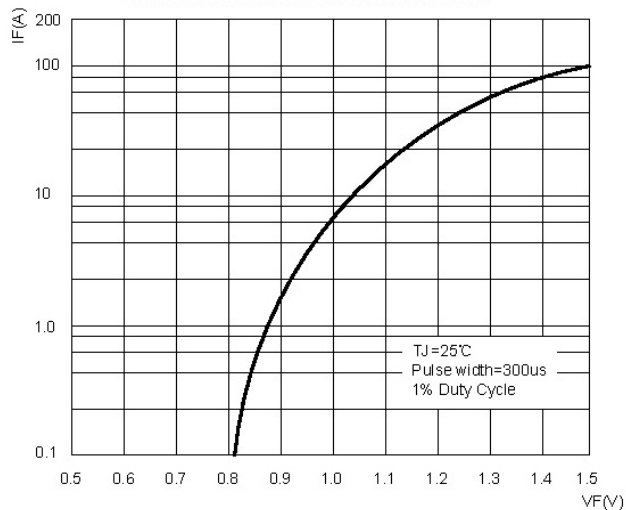


FIG.4: TYPICAL REVERSE CHARACTERISTICS

