

GS1A~GS1M

SURFACE MOUNT GENERAL RECTIFIERS

Reverse Voltage – 50 to 1000 Volts

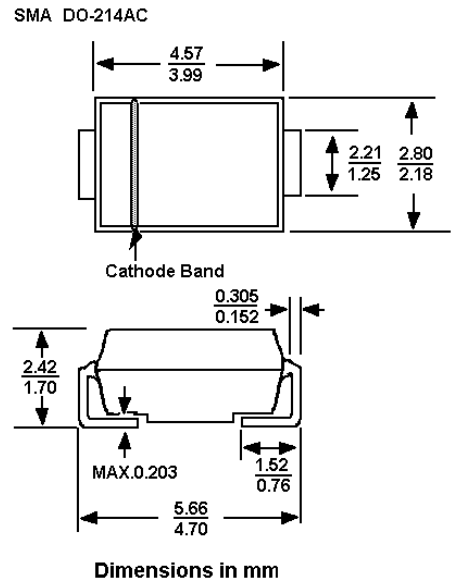
Forward Current – 1.0 Ampere

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-O
- High temperature soldering: 250°C/10sec at terminals

Mechanical Data

- Case: JEDEC DO-214AC, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750.Method 2026.
- Polarity: Color band denotes cathode band
- Mounting position: Any

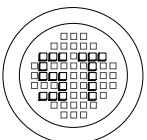


Absolute Maximum Ratings and Characteristics

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%.

	Symbols	GS1A	GS1B	GS1D	GS1G	GS1J	GS1K	GS1M	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at $T_L = 110^\circ\text{C}$	$I_{(AV)}$	1.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							Amps
Maximum instantaneous forward voltage at 1A	V_F	1.1							Volts
Maximum DC reverse current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 100^\circ\text{C}$	I_R	5 50							μA
Typical junction capacitance (Note 1)	C_J	15							pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	75							$^\circ\text{C/W}$
Operating and storage temperature range	T_J, T_S	-65 to +175							$^\circ\text{C}$

- Notes: (1) Measured at 1 MHz and applied $V_r = 4$ volts.
(2) P.C.B. mounted with 0.2x0.2(5x5mm) copper pad areas.



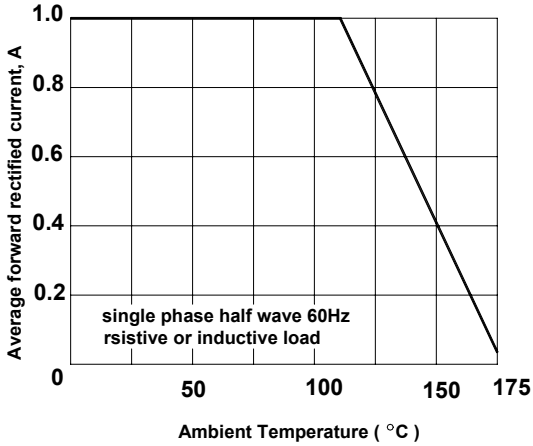
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РАДИОТЕХ-ТРЕЙД

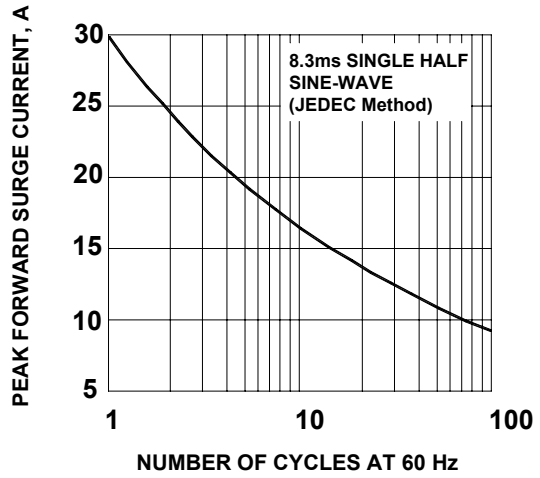
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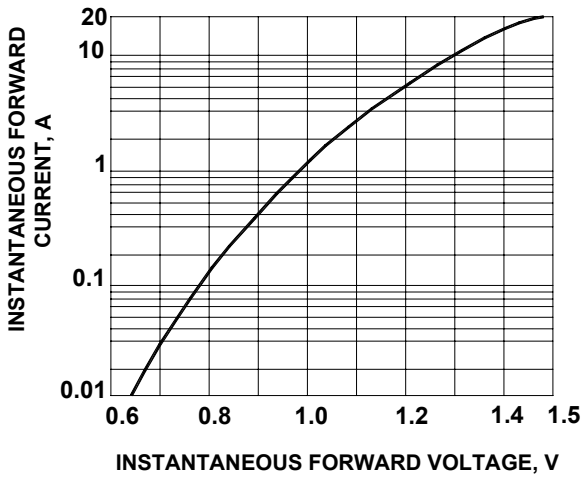
Forward current derating curve



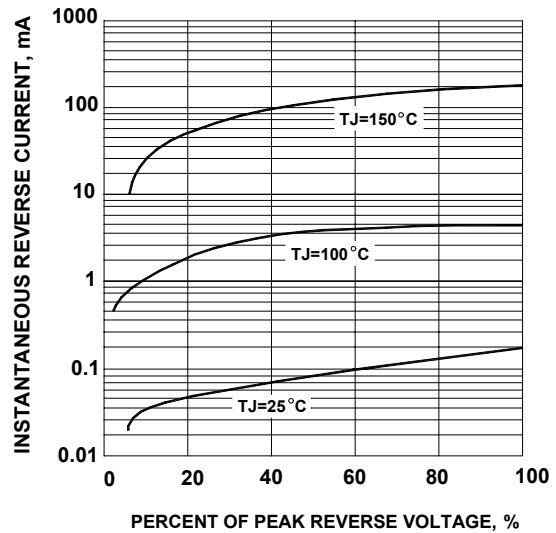
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



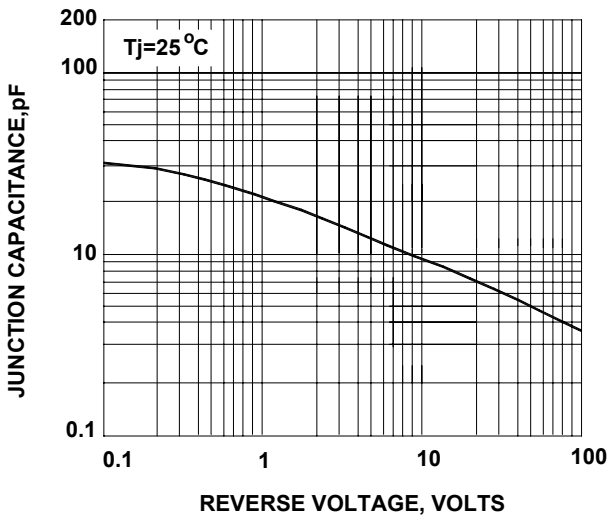
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



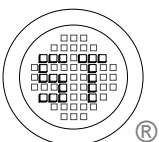
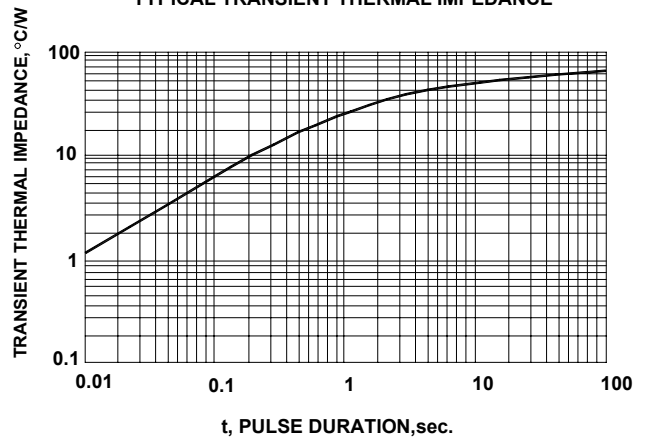
TYPICAL REVERSE CHARACTERISTICS



TYPICAL JUNCTION CAPACITANCE

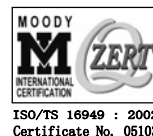


TYPICAL TRANSIENT THERMAL IMPEDANCE



SEMTECH ELECTRONICS LTD.

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



Dated : 10/05/2003