

GF1A THRU GF1M

SURFACE MOUNT GENERAL RECTIFIER

Reverse Voltage - 50 to 1000 V

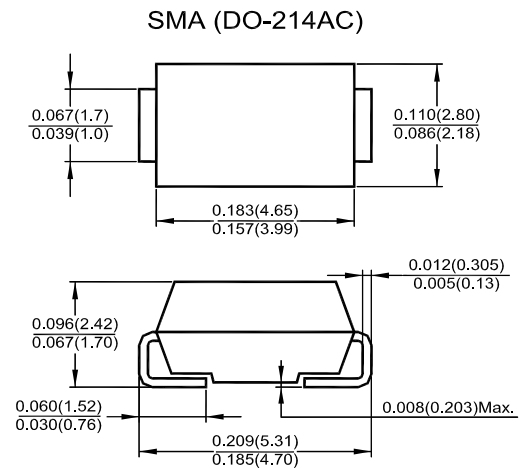
Forward Current - 1 A

Features

- The plastic package carries UL flammability classification 94V-0
- For surface mounted applications
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability

Mechanical Data

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



Dimensions in inches and (millimeters)

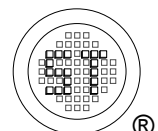
Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, For capacitive load current derate by 20%.

Parameter		Symbol	GF1A	GF1B	GF1D	GF1G	GF1J	GF1K	GF1M	Unit
Maximum Repetitive 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 °C		I _(AV)	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC method)		I _{FSM}	30							A
Maximum Instantaneous Forward Voltage at 1 A		V _F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A = 25 °C	I _R	5							μA
	T _A = 100 °C		50							
Typical Junction Capacitance ¹⁾		C _J	15							pF
Typical Thermal Resistance ²⁾		R _{θJA}	75							°C/W
Operating Junction and Storage Temperature Range		T _J , T _{stg}	- 55 to + 150							°C

¹⁾ Measured at 1 MHz and applied reverse voltage of 4 V.

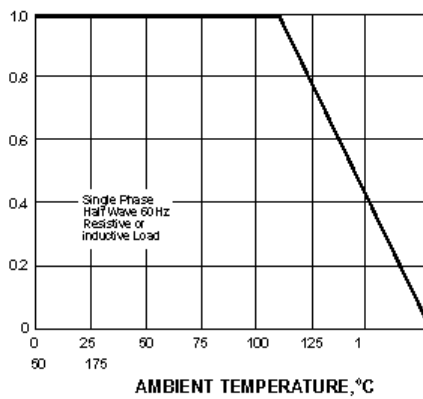
²⁾ P.C.B mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.



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AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

FIG. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

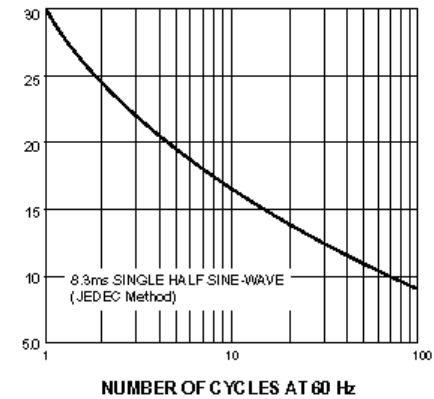


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

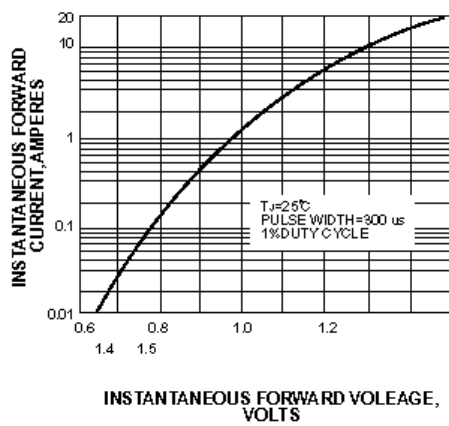


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

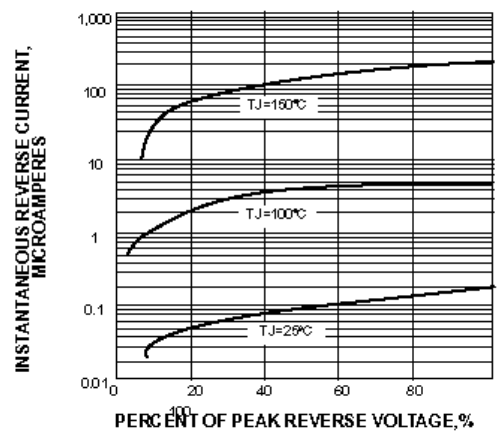


FIG. 5- TYPICAL JUNCTION CAPACITANCE

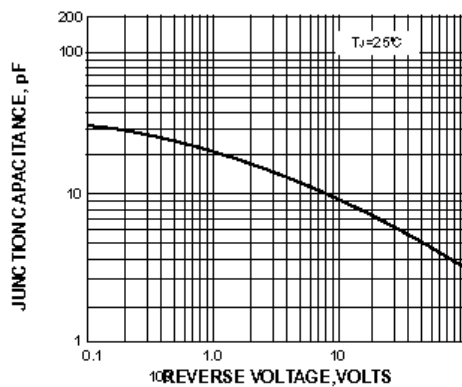


FIG. 6- TYPICAL TRANSIENT THERMAL IMPEDANCE

