

GF1A THRU GF1M

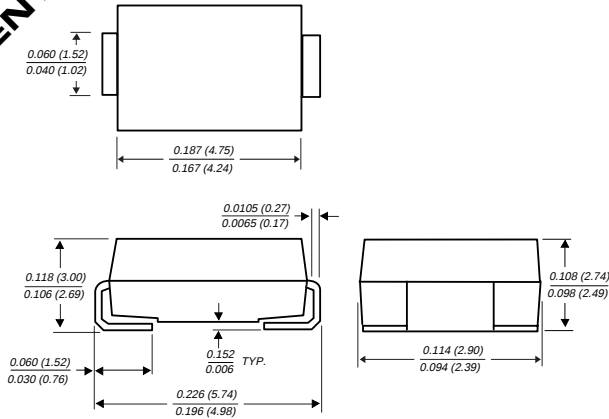
SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0 Ampere

PATENTED*

DO-214BA



Dimensions in inches and (millimeters)

* Glass-plastic encapsulation technique is covered by Patent No. 3,996,602, brazed-lead assembly by Patent No. 3,930,306 and lead forming by Patent No. 5,151,846

SUPERRECTIFIER®

FEATURES

- ♦ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ♦ Ideal for surface mount automotive applications
- ♦ High temperature metallurgically bonded construction
- ♦ Glass passivated cavity-free junction
- ♦ Capable of meeting environmental standards of MIL-S-19500
- ♦ Built-in strain relief
- ♦ Easy pick and place
- ♦ High temperature soldering guaranteed: 450°C/5 seconds at terminals
- ♦ Complete device submersible temperature of 265°C for 10 seconds in solder bath



MECHANICAL DATA

Case: JEDEC DO-214BA molded plastic over glass body

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.0048 ounces, 0.120 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GF1A	GF1B	GF1D	GF1G	GF1J	GF1K	GF1M	UNITS
Device marking code		GA	GB	GD	GG	GJ	GK	GM	
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at TL=125°C	l(AV)	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	lFSM	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	VF	1.10					1.20		Volts
Maximum DC reverse current at rated DC blocking voltage	IR	5.0 50.0							μA
Typical reverse recovery time (NOTE 1)	trr	2.0							μs
Typical junction capacitance (NOTE 2)	CJ	15.0							pF
Typical thermal resistance (NOTE 3)	RθJA RθJL	80.0 26.0							°C/W
Operating junction and storage temperature range	TJ, TSTG	-65 to +175							°C

NOTES:

- (1) Reverse recovery test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $t_{rr}=0.25\text{A}$
- (2) Measured at 1.0 MHz and applied $V_R=4.0$ Volts
- (3) Thermal resistance from junction to ambient and from junction to lead
P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES GF1A THRU GF1M

FIG. 1 - FORWARD CURRENT DERATING CURVE

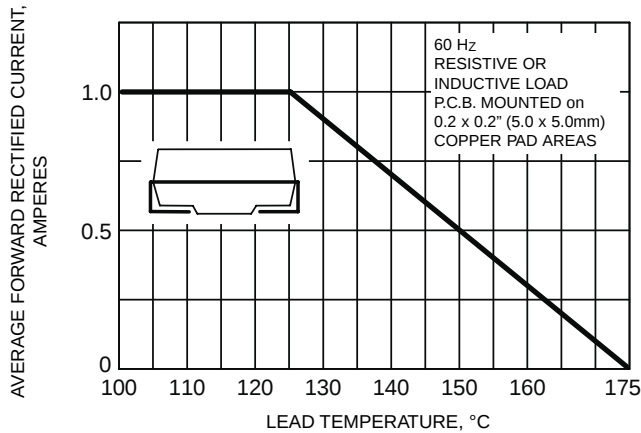


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

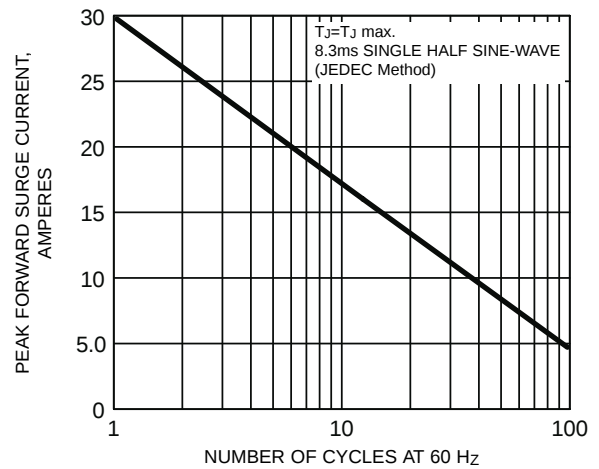


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

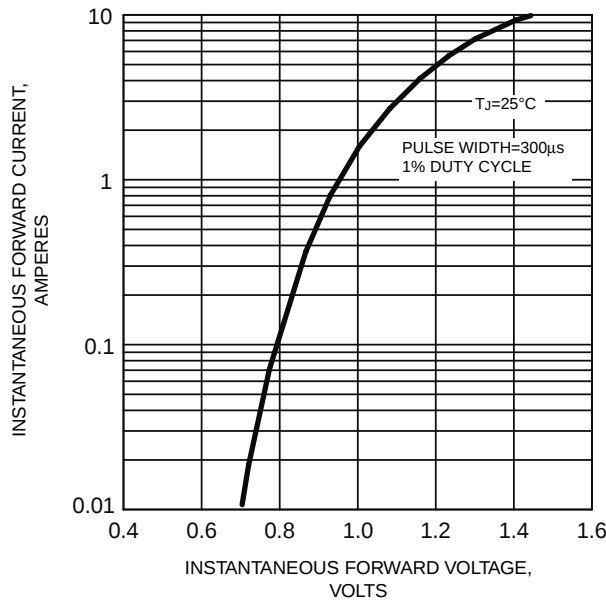


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

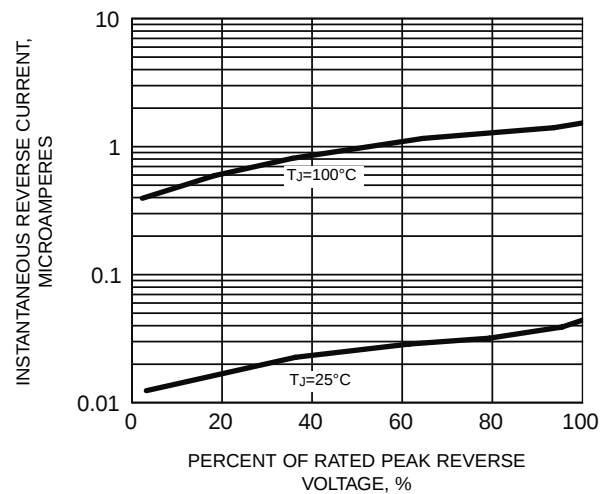


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

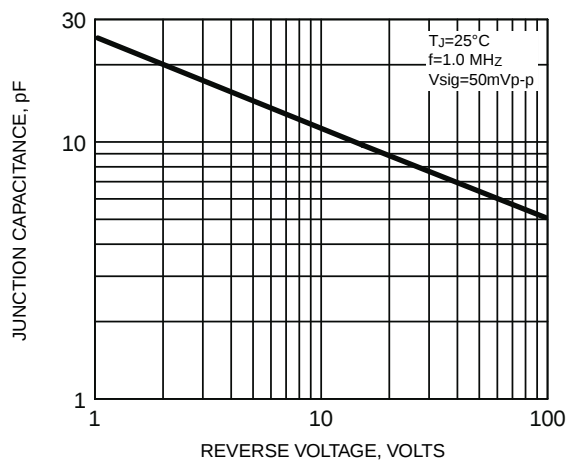


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

