



# GF30A THRU GF30M

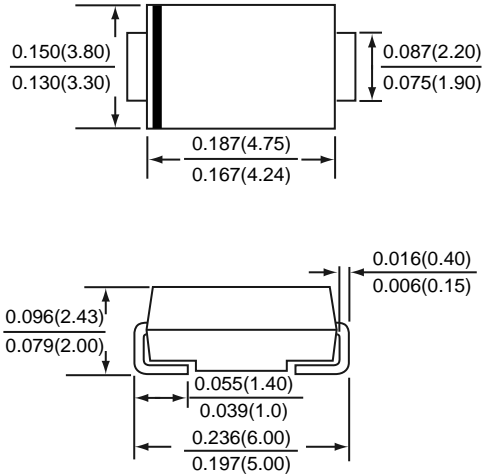
## SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 3.0 Amperes

**PATENTED**

SMB/DO-214AA



\*Dimensions in inches and (millimeters)

**SUPEREX II**<sup>TM</sup>



### FEATURES

- \* GPRC (Glass Passivated Rectifier Chip) inside
- \* Glass passivated cavity-free junction
- \* Ideal for surface mount automotive applications
- \* Built-in strain relief
- \* Easy pick and place
- \* High temperature soldering guaranteed: 260°C/10 seconds, at terminals
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0

### MECHANICAL DATA

**Case :** JEDEC DO-214AA molded plastic over passivated chip

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

**Polarity :** Color band denotes cathode end

**Weight :** 0.004 ounces , 0.12 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	GF30							UNITS
		A	B	D	G	J	K	M	
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 (SEE FIG.1)	I (AV)	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	115							Amps
Maximum instantaneous forward voltage at 3.0 A	VF	1.0							Volts
Maximum DC reverse current at rated DC blocking voltage	IR	5 50 100							uA
Typical junction capacitance (NOTE 1)	CJ	40							pF
Typical thermal resistance (NOTE 2)	R θJA R θJL	47 13							°C / W
Operating junction and storage temperature range	TJ,TSTG	-65 to +175							°C

NOTES : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

(2) 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 GF30A THRU GF30M

FIG.1 - FORWARD CURRENT DERATING CURVE

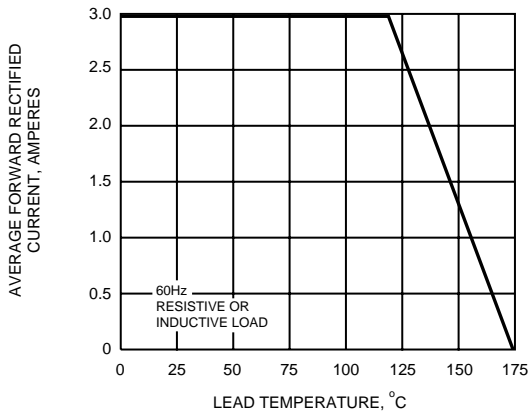


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

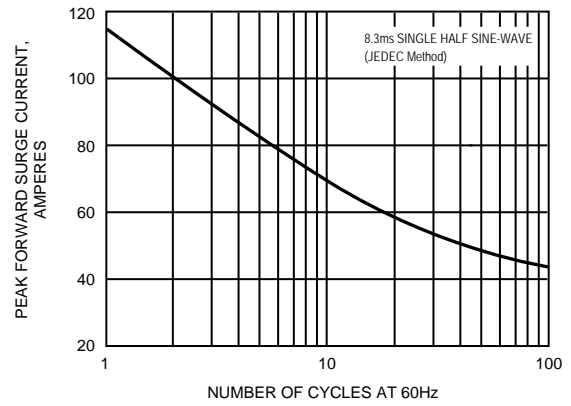


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

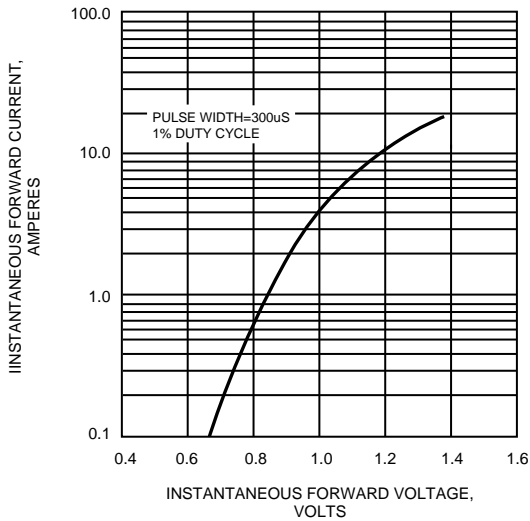


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

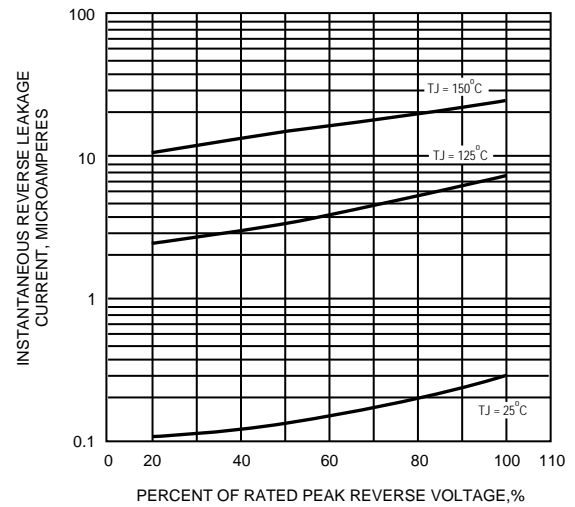


FIG.5 - TYPICAL JUNCTION CAPACITANCE

