



# RGF30A THRU RGF30M

## SURFACE MOUNT GLASS PASSIVATED JUNCTION FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 3.0 Amperes

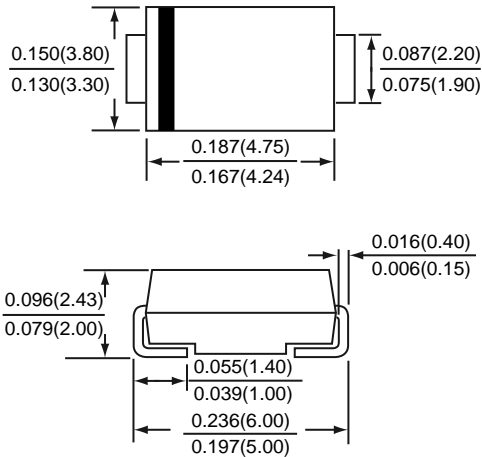
**PATENTED**

SMB/DO-214AA



### FEATURES

- \* GPRC (Glass Passivated Rectifier Chip) inside
- \* Glass passivated cavity-free junction
- \* Ideal for surface mount automated applications
- \* Fast switching for high efficiency
- \* 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



\*Dimensions in inches and (millimeters)

**SUPEREX II**™

### 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	RGF30										UNITS	
		A	B	D	G	J	JA	K	KA	M	MA		
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	600	800	800	1000	1000	Volts	
Maximum RMS voltage	VRMS	35	70	140	280	420	420	560	560	700	700	Volts	
Maximum DC blocking voltage	VDC	50	100	200	400	600	600	800	800	1000	1000	Volts	
Maximum average forward rectified current at TL=100°C	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	1.3										Volts	
Maximum DC reverse current at rated DC blocking voltage	IR	5 50 120										uA	
Maximum reverse recovery time (NOTE 1)	trr	150			250		150		500		300		nS
Typical junction capacitance (NOTE 2)	CJ	60										pF	
Typical thermal resistance (NOTE 3)	RθJA RθJL	50 15										°C / W	
Operating junction and storage temperature range	TJ,TSTG	-65 to +175										°C	

NOTES : (1) Reverse recovery test condition : IF 0.5A, IR=1.0A, Irr=0.25A  
 (2) Measured at 1.0 MHz and applied reverse voltage of 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 RGF30A THRU RGF30M

FIG.1 - FORWARD CURRENT DERATING CURVE

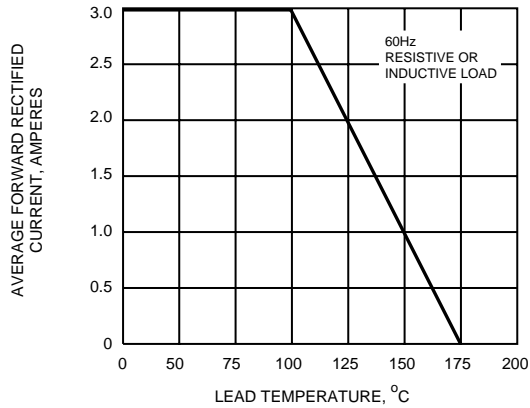


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

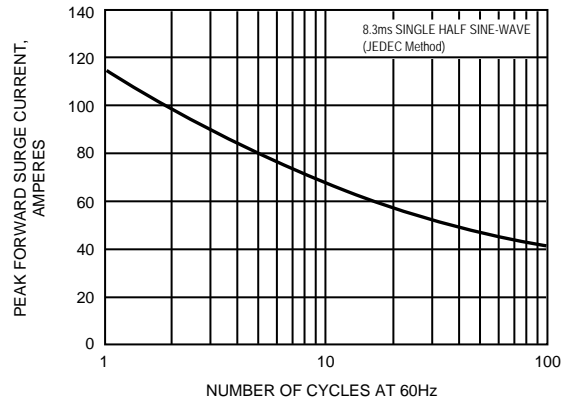


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

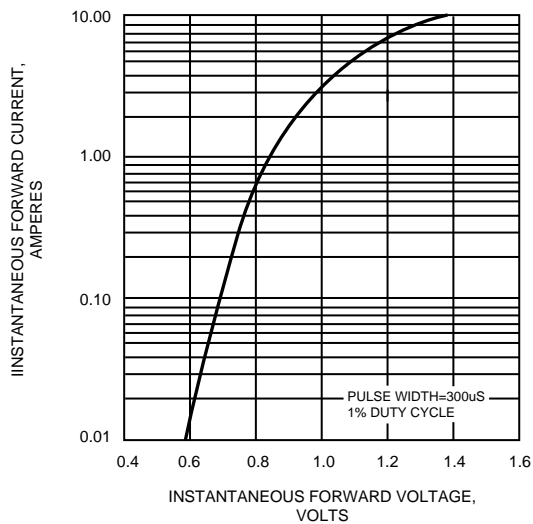


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

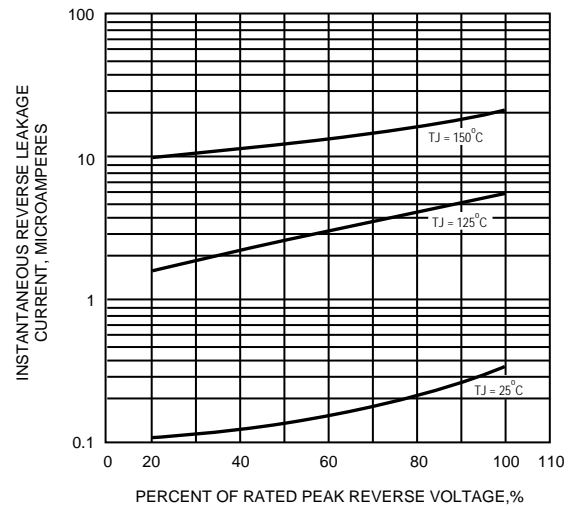


FIG.5 - TYPICAL JUNCTION CAPACITANCE

