



# R4GBJ8005 thru R4GBJ810

**&0A, Fast Recovery Glass Passivated Bridge Rectifier**  
Rectifier Reverse Voltage 50 to 1000V

## Features

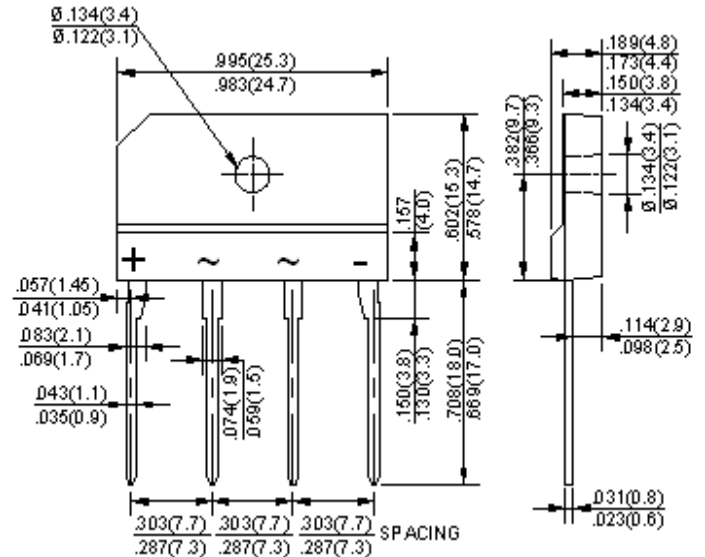
- Ideal for printed circuit board mounting
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Built-in printed circuit board stand-offs
- High case dielectric strength
- High temperature soldering guaranteed 260°C/5 seconds at 5 lbs (2.3kg) tension

## Mechanical Data

Case: Reliable low cost construction utilizing molded plastic technique

Terminals: Plated leads solderable per MIL-STD-202, Method 208

Mounting Position: Any



Dimensions in inches and (millimeters)

## Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
For Capacitive load derate current by 20%.

Parameter	Symbol	R4GBJ 8005	R4GBJ 801	R4GBJ 802	R4GBJ 804	R4GBJ 806	R4GBJ 808	R4GBJ 810	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at TC=100°C (with heatsink)	IF(AV)	8.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	175							A
Rating for fusing (t<8.3ms)	I <sup>2</sup> t	127							A <sup>2</sup> sec
Maximum reverse recovery time (Note 2)	t <sub>rr</sub>	150			250		500		ns
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150							°C

## Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
For Capacitive load derate by 20 %.

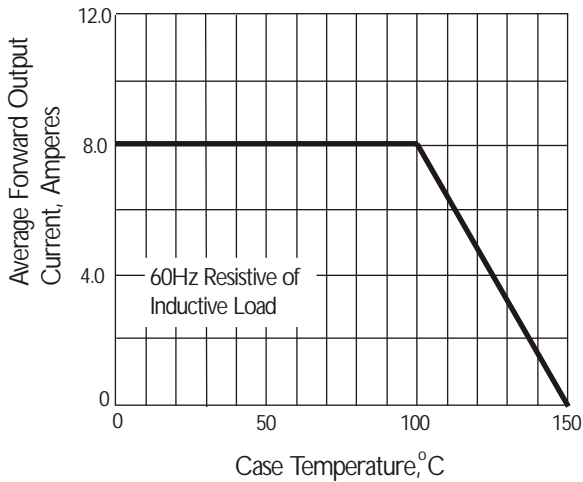
Parameter	Symbol	R4GBJ 8005	R4GBJ 801	R4GBJ 802	R4GBJ 804	R4GBJ 806	R4GBJ 808	R4GBJ 810	Unit	
Maximum instantaneous forward voltage drop per leg at 4.0A	V <sub>F</sub>	1.3							V	
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =125°C	I <sub>R</sub>	10				500				μA

**Notes:** (1) Thermal resistance from Junction to Ambient on P.C.board mounting.

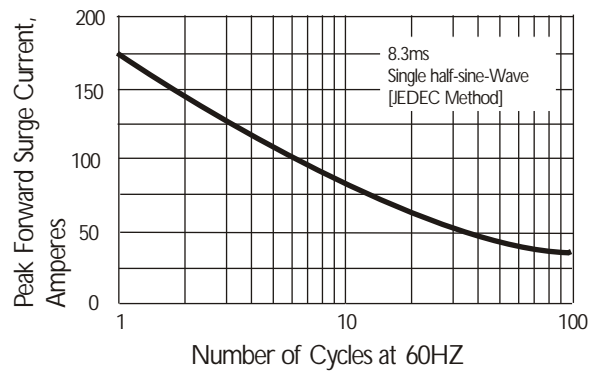
(2) Reverse recovery time test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

# Rating and Characteristic Curves ( $T_A=25^{\circ}\text{C}$ Unless otherwise noted ) R4GBJ8005 thru R4GBJ810

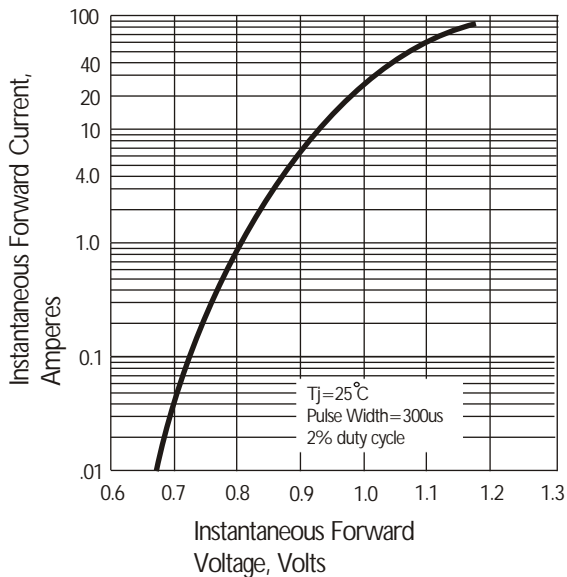
**Fig. 1 Derating Curve for Output Rectified Current**



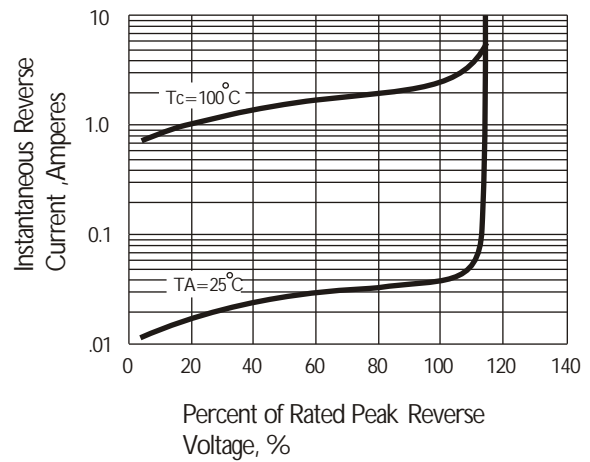
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics**



**Fig. 5 Typical Junction Capacitance**

