



# R4GBJ4005 thru R4GBJ410

## 4.0A, Fast Recovery Glass Passivated Bridge Rectifier Rectifier Reverse Voltage 50 to 1000V

### Features

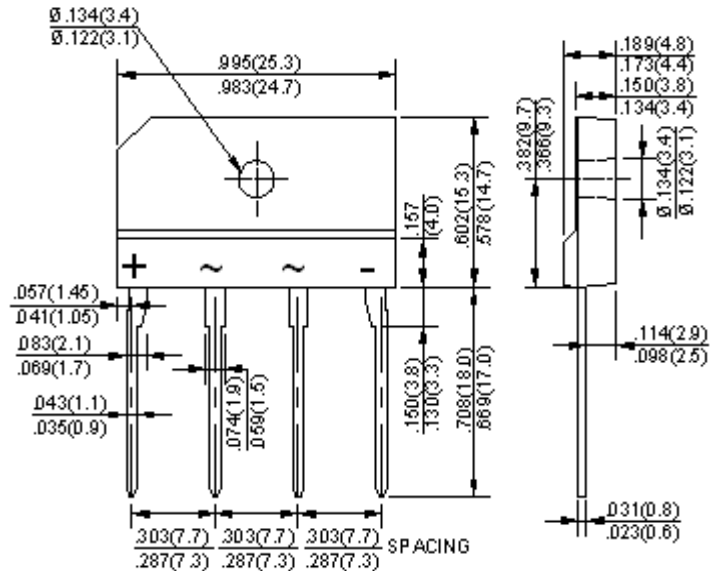
- Ideal for printed circuit board mounting
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Built-in printed circuit board stand-offs
- High case dielectric strength
- High temperature soldering guaranteed 260°C /5 seconds at 5 lbs (2.3kg) tension

### 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 4005	R4GBJ 401	R4GBJ 402	R4GBJ 404	R4GBJ 406	R4GBJ 408	R4GBJ 410	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)	4.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	135							A
Rating for fusing ( t<8.3ms)	I <sup>2</sup> t	75							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 4005	R4GBJ 401	R4GBJ 402	R4GBJ 404	R4GBJ 406	R4GBJ 408	R4GBJ 410	Unit
Maximum instantaneous forward voltage drop per leg at 2.0A	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.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
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 )  
**R4GBJ4005 thru R4GBJ410**

FIG.1-FORWARD CURRENT DERATING CURVE

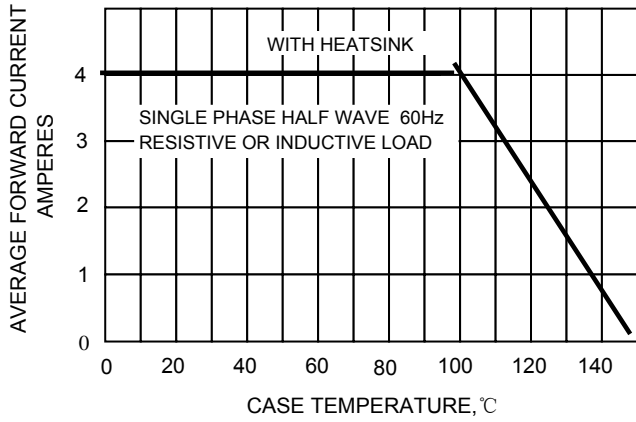


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

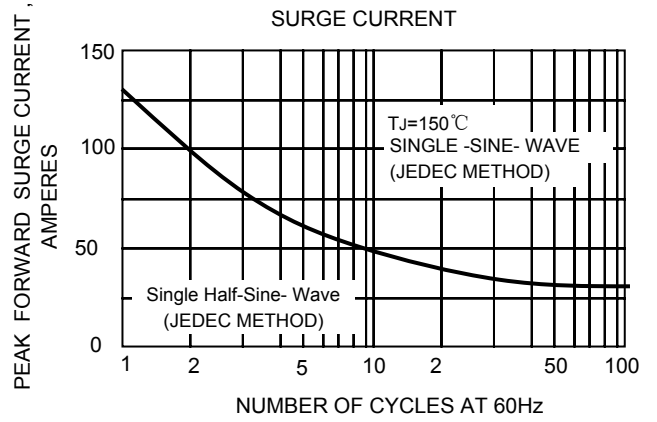


FIG.3-TYPICAL JUNCTION CAPACITANCE

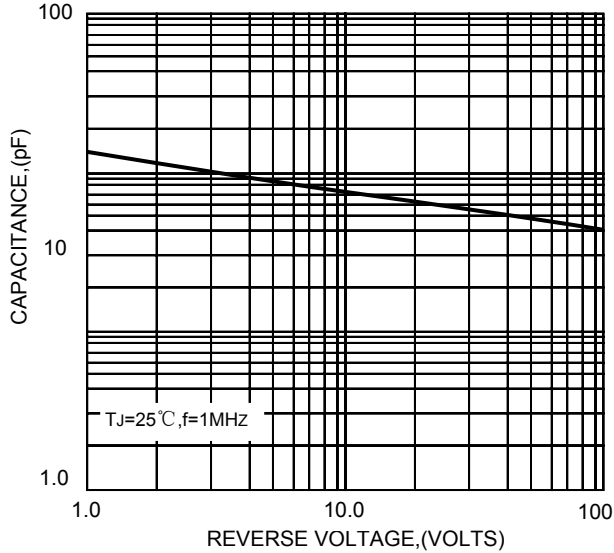


FIG.4-TYPICAL FORWARD CHARACTERISTICS

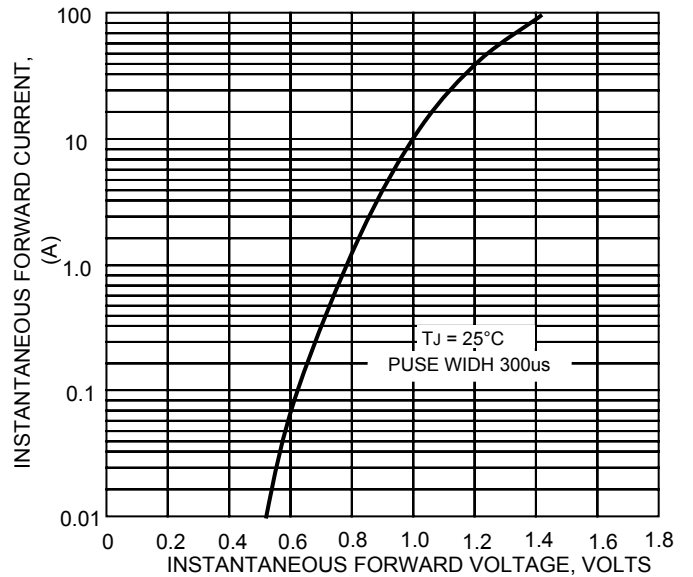


FIG.5-TYPICAL REVERSE

