



# DATA SHEET

## GBJ4A~GBJ4K

**GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER**

**VOLTAGE - 50 to 800 Volts CURRENT - 4.0 Amperes**



Recognized File #E228882

GBJ

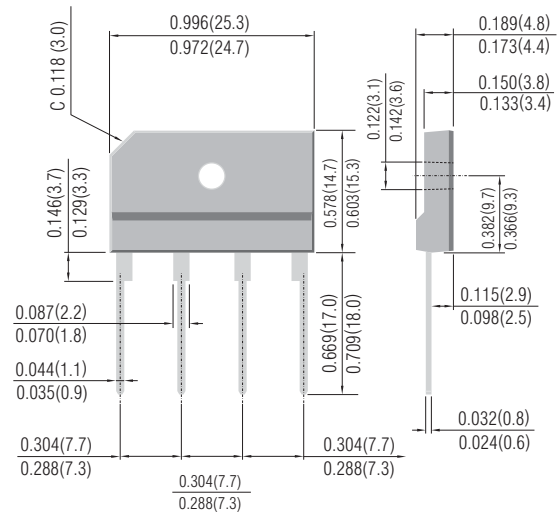
Unit: inch ( mm )

### FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Surge overload rating: 150 Amperes peak
- High temperature soldering guaranteed:  
260°C/10 seconds/.375"(9.5mm) lead length at 5 lbs. (2.3kg) tension

### MECHANICAL DATA

Case: Reliable low cost construction utilizing molded plastic technique  
 Terminals: Leads solderable per MIL-STD-202, Method 208  
 Mounting position: Any  
 Mounting torque: 5 in. lb. Max.  
 Weight: 0.15 ounce, 4.0 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	GBJ4A	GBJ4B	GBJ4D	GBJ4G	GBJ4J	GBJ4K	UNIT
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	V
Maximum RMS Input Voltage	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	V
Maximum Average Forward $T_C=100^\circ\text{C}$ Rectified Output Current	4.0						A
$I^2t$ Rating for fusing ( $t < 8.3\text{ms}$ )	127						A <sup>2</sup> sec
Peak Forward Surge Current single sine-wave superimposed on rated load (JEDEC method)	150						Apk
Maximum Instantaneous Forward Voltage Drop per element at 2.0A	1.0						Vpk
Maximum Reverse Leakage at rated $T_A=25^\circ$ CDc Blocking Voltage per element $T_C=100^\circ\text{C}$	5 500						$\mu\text{A}$ $\mu\text{A}$
Typical Thermal Resistance per leg(Note 2) R $\theta$ JA	8.6						°C / W
Typical Thermal Resistance per leg(Note 3) R $\theta$ JC	3.1						°C / W
Operating and Storage Temperature Range, $T_J, T_{STG}$	-55 to +150						°C

**NOTES:**

1. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw.
2. Units Mounted in free air, no heatsink, P.C.B at 0.375"(9.5mm) lead length with 0.5 x 0.5"(12 x 12mm)copper pads.
3. Units Mounted on a 2.6 x 1.4" x 0.06" thick ( 6.5 x 3.5 x 0.15cm) AL plate.



**RATING AND CHARACTERISTIC CURVES**

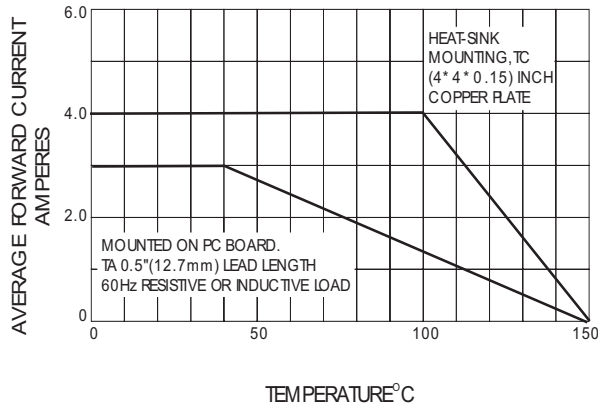


Fig. 1- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

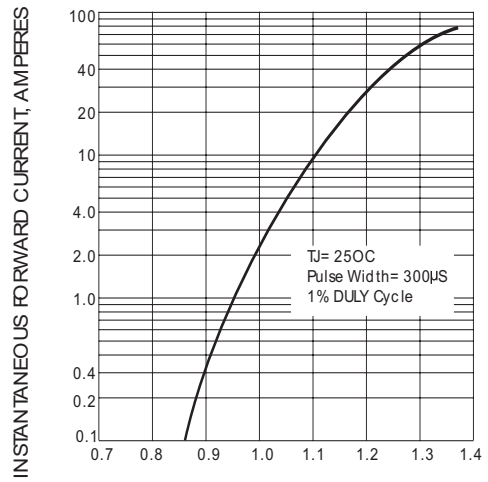


Fig. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

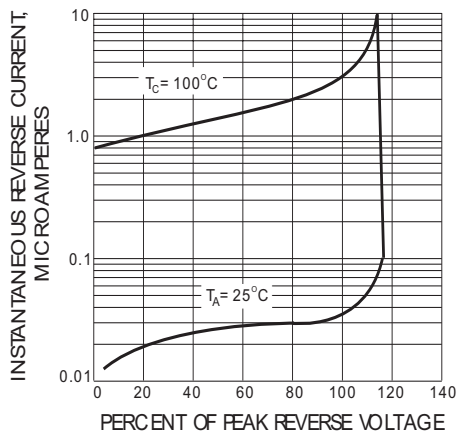


Fig. 3- TYPICAL PEAK REVERSE CHARACTERISTICS

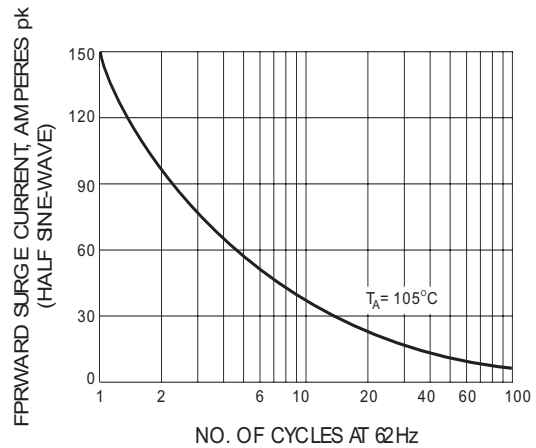


Fig. 4- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

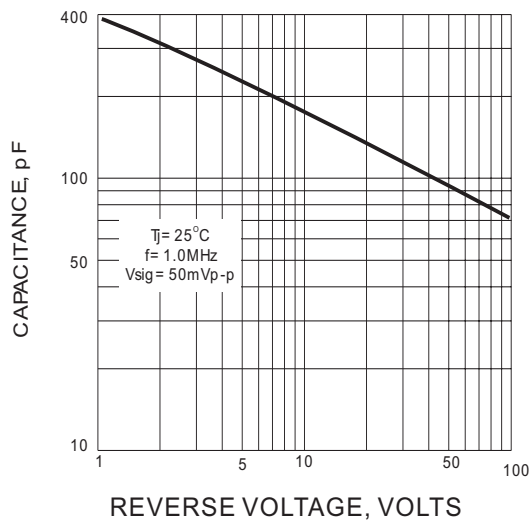


Fig.5- TYPICAL JUNCTION CAPACITANCE PER ELEMENT



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