



# DATA SHEET

## GBJ6A~GBJ6K

### GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE - 50 to 800 Volts CURRENT - 6.0 Amperes

#### 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: 175 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

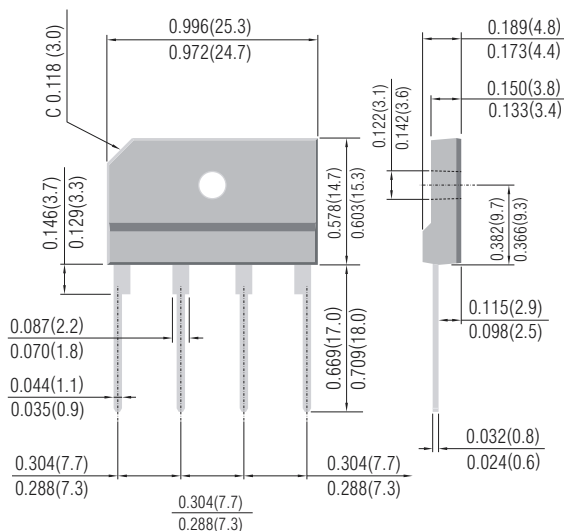
Mounting position: Any

Mounting torque: 5 in. lb. Max.

Weight: 0.15 ounce, 4.0 grams

GBJ

Unit: inch ( mm )



#### 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%.

	GBJ6A	GBJ6B	GBJ6D	GBJ6G	GBJ6J	GBJ6K	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	6.0						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)	175						Apk
Maximum Instantaneous Forward Voltage Drop per element at 6.0A	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						$^{\circ}\text{C} / \text{W}$
Typical Thermal Resistance per leg(Note 3) $R_{\theta JC}$	3.1						$^{\circ}\text{C} / \text{W}$
Operating and Storage Temperature Range, $T_J, T_{STG}$	-55 to +150						$^{\circ}\text{C}$

#### NOTES:

- Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw.
- 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.
- 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

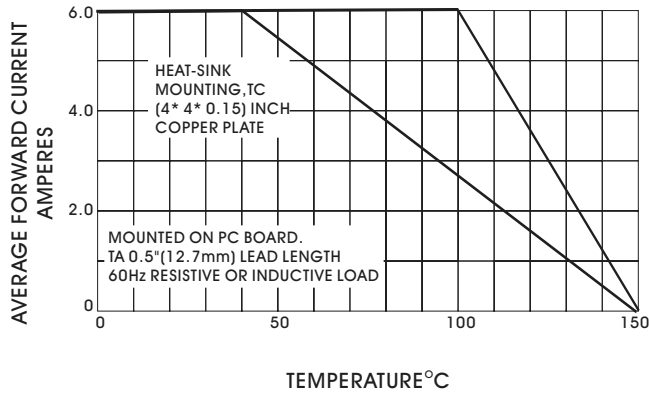


Fig. 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

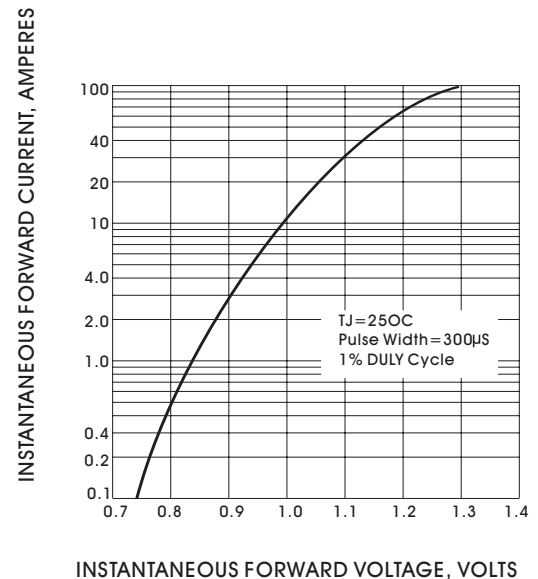


Fig. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

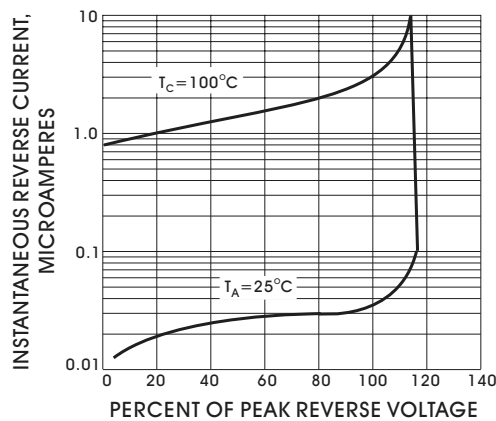


Fig. 3 - TYPICAL PEAK REVERSE CHARACTERISTICS

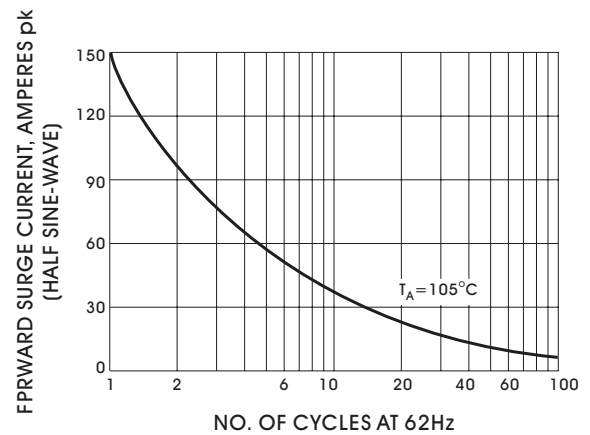


Fig. 4 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

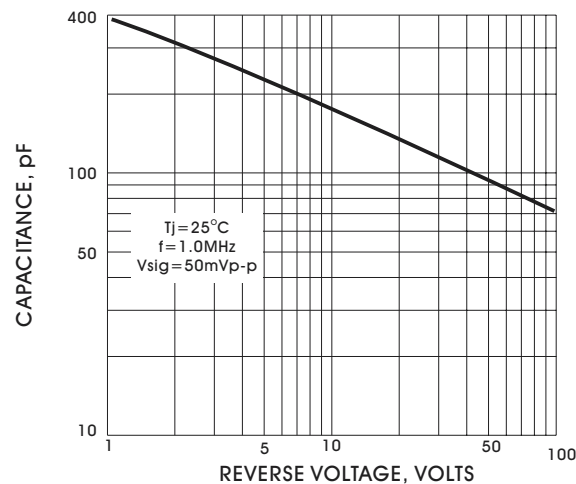


Fig. 5 - TYPICAL JUNCTION CAPACITANCE PER ELEMENT