



GBJ8005 THRU GBJ810

GLASS PASSIVATED BRIDGE RECTIFIER

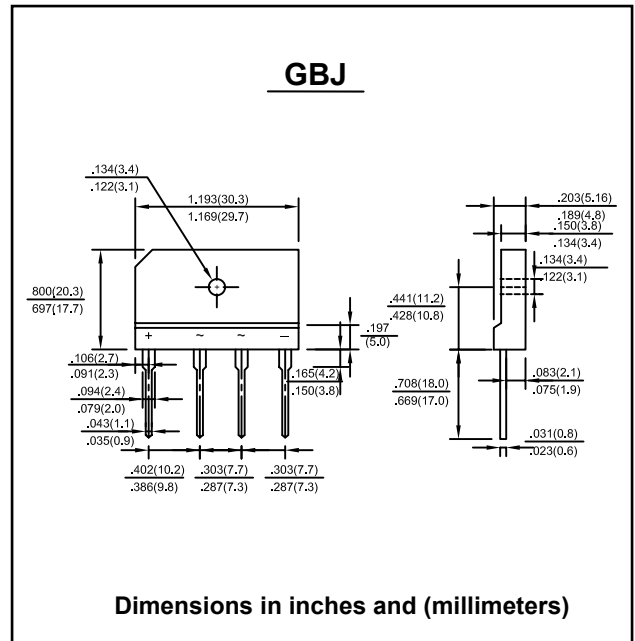
Reverse Voltage - 50 to 1000 Volts Forward Current - 8.0 Ampere

FEATURES

- Glass passivated chip junction
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low reverse leakage current
- Low forward voltage drop
- High surge current capability

MECHANICAL DATA

- Case: Molded plastic, GBJ
- Terminals: Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	Symbols	GBJ 8005	GBJ 801	GBJ 802	GBJ 804	GBJ 806	GBJ 808	GBJ 810	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current with Heatsink at $T_C = 100^\circ\text{C}$	$I_{(AV)}$	10							A
Peak Forward Surge Current, 8.3 ms Single Half-Sine Wave superimposed on rated load (JEDEC Method)	I_{FSM}	170							A
Maximum Forward Voltage at 4.0 A DC and 25 °C	V_F	1.1							V
Maximum Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 125^\circ\text{C}$	I_R	5.0 500							μA
Typical Junction Capacitance ¹⁾	C_J	55							pF
Typical Thermal Resistance ²⁾	$R_{\theta JC}$	1.6							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_S	-55 to +150							$^\circ\text{C}$

¹⁾ Measured at 1 MHz and applied reverse voltage of 4 VDC.

²⁾ Thermal resistance from junction to case with device mounted on 300 mm X 300 mm X 1.6 mm Cu plate heatsink.



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RATINGS AND CHARACTERISTIC CURVES

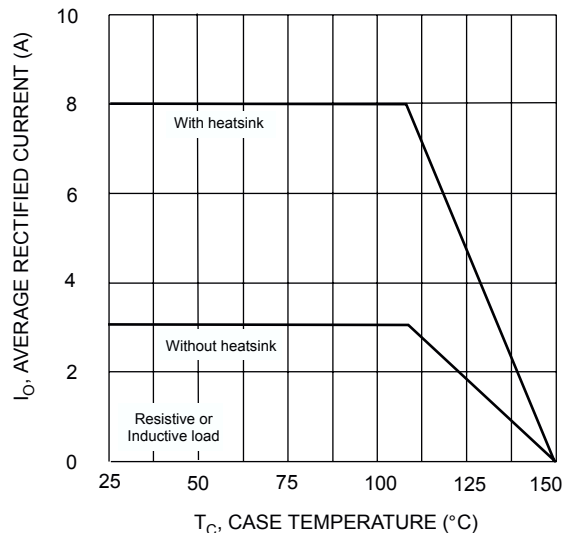


Fig. 1 Forward Current Derating Curve

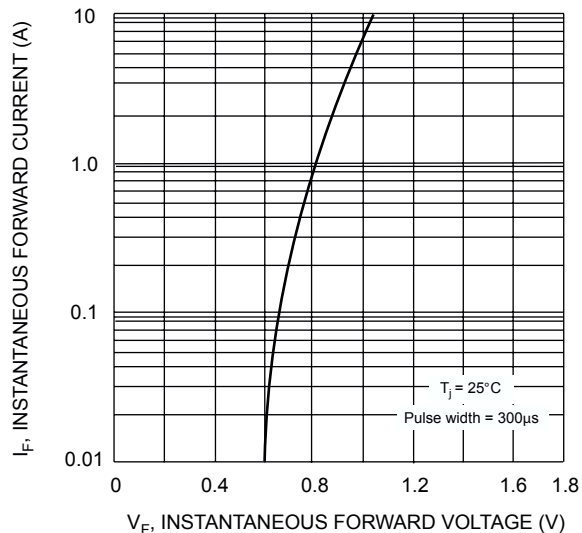


Fig. 2 Typical Forward Characteristics (per element)

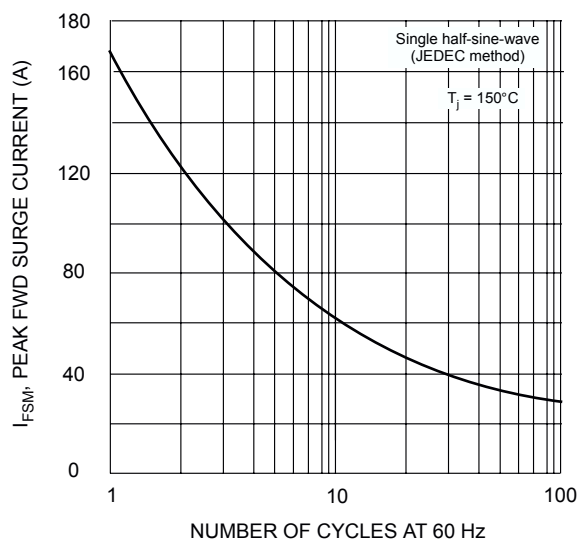


Fig. 3 Maximum Non-Repetitive Surge Current

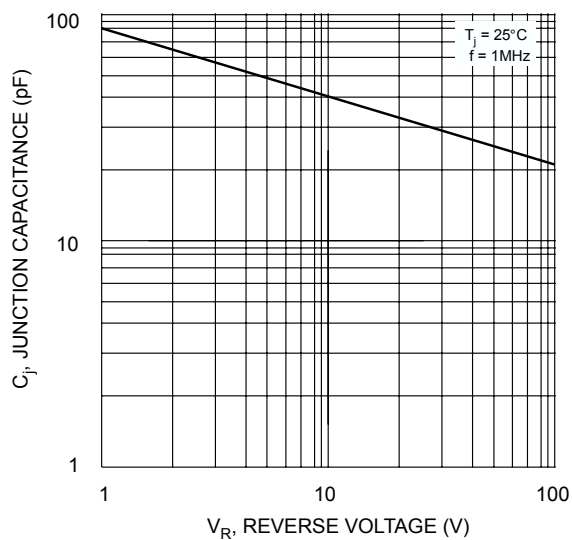


Fig. 4 Typical Junction Capacitance

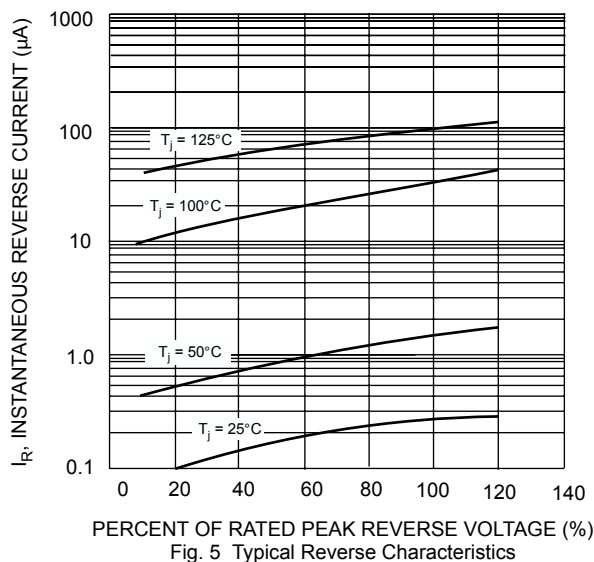


Fig. 5 Typical Reverse Characteristics