



# DATA SHEET

SEMICONDUCTOR

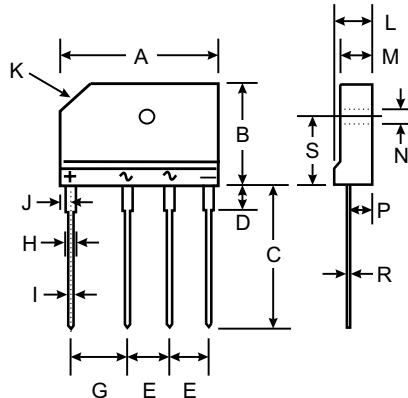
GBJ8005 THRU GBJ810

## 8.0A GLASS PASSIVATED BRIDGE RECTIFIER



### FEATURES

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500VRMS
- Low Reverse Leakage Current
- Surge Overload Rating to 170A Peak
- Ideal for Printed Circuit Board Applications
- Plastic Material - UL Flammability Classification 94V-0
- UL Listed Under Recognized Component
- Index, File Number E94661
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request



GBJ		
Dim	Min	Max
A	29.70	30.30
B	19.70	20.30
C	17.00	18.00
D	3.80	4.20
E	7.30	7.70
G	9.80	10.20
H	2.00	2.40
I	0.90	1.10
J	2.30	2.70
K	3.0 X 45°	
L	4.40	4.80
M	3.40	3.80
N	3.10	3.40
P	2.50	2.90
R	0.60	0.80
S	10.80	11.20
All Dimensions in mm		

### MECHANICAL DATA

- Case: Molded Plastic
- Terminals: Plated Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Molded on Body
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 5.0 in-lbs Maximum
- Weight: 6.6 grams (approx.)
- Marking: Type Number

### Maximum Ratings and Electrical Characteristics @ TA = 25 unless otherwise specified

Single phase, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	GBJ 8005	GBJ 801	GBJ 802	GBJ 804	GBJ 806	GBJ 808	GBJ 810	Unit
Peak Repetitive Reverse Voltage	VRRM								
Working Peak Reverse Voltage	VRWM	50	100	200	400	600	800	1000	V
DC Blocking Voltage	VR								
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Forward Rectified Output Current @ TC= 110	IO	8.0							A
Non-Repetitive Peak Forward Surge Current, 8.3 ms single half-sine-wave superimposed on rated load (JEDEC method)	IFSM	170							A
Forward Voltage per element @ IF = 4.0A	VFM	1.0							V
Peak Reverse Current @TC = 25 at Rated DC Blocking Voltage @ TC = 125	IR	5.0							μA
I2t Rating for Fusing (t < 8.3ms) (Note 1)	I2t	120							A2s
Typical Junction Capacitance per Element (Note 2)	Cj	55							pF
Typical Thermal Resistance, Junction to Case (Note 3)	R_JC	1.8							/W
Operating and Storage Temperature Range	Tj, TSTG	-55 to +150							

- Notes: 1. Non-repetitive, for t > 1.0ms and < 8.3ms.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.  
3. Thermal resistance from junction to case per element. Unit mounted on 100 x 100 x 1.6mm aluminum plate heat sink.

# DEVICE CHARACTERISTICS

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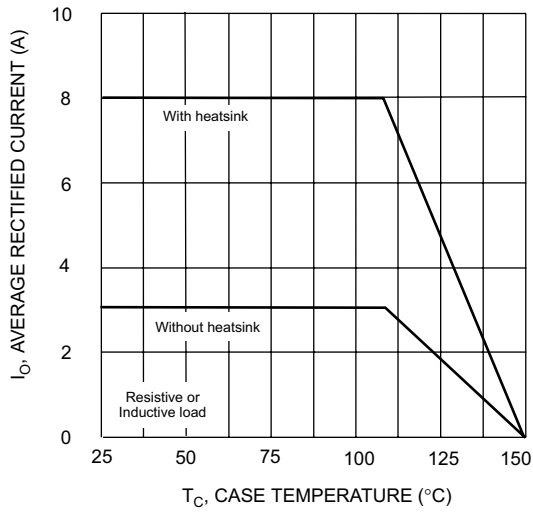


Fig. 1 Forward Current Derating Curve

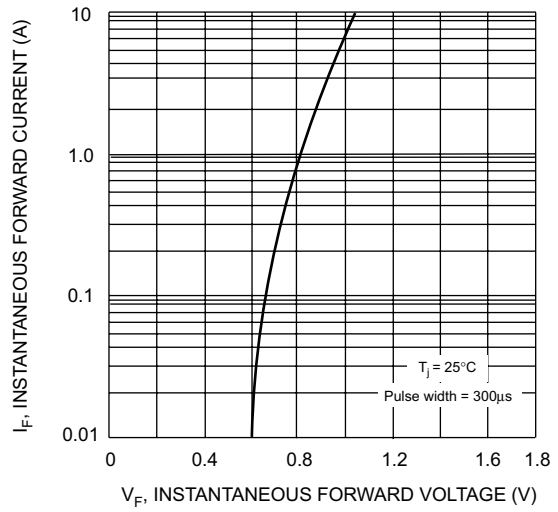


Fig. 2 Typical Forward Characteristics (per element)

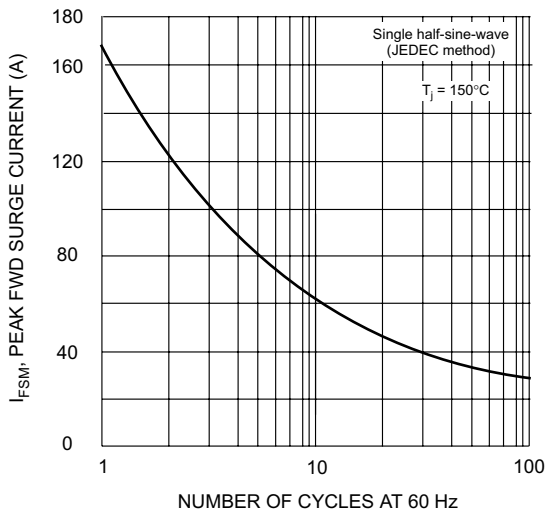


Fig. 3 Maximum Non-Repetitive Surge Current

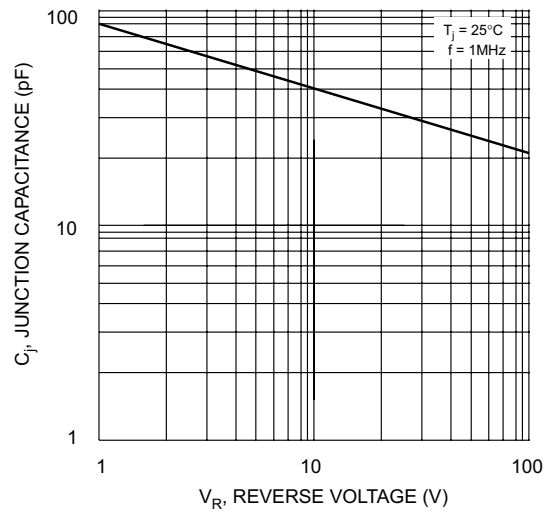


Fig. 4 Typical Junction Capacitance

