SEMICONDUCTOR

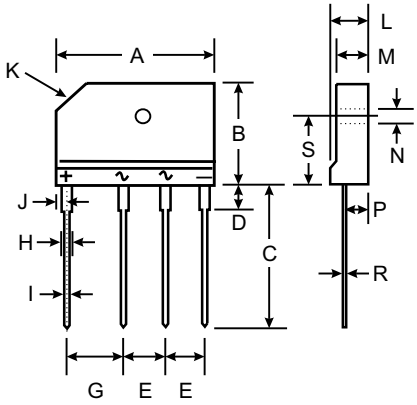
DATA SHEET

GBJ25005 THRU GBJ2510

25A GLASS PASSIVATED BRIDGE RECTIFIER

FEATURES

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500VRMS
- Low Reverse Leakage Current
- Surge Overload Rating to 350A 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 ° C unless otherwise specified

Single phase, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristic	Symbol	GBJ 25005	GBJ 2501	GBJ 2502	GBJ 2504	GBJ 2506	GBJ 2508	GBJ 2510	Unit
Peak Repetitive Reverse Voltage **Working Peak Reverse Voltage** **DC Blocking Voltage**	VRRM VRWM VR	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Forward Rectified Output Current (Note 1) @ TC= 110℃	IO	25							A
Non-Repetitive Peak Forward Surge Current, 8.3 ms single half-sine-wave superimposed on rated load (JEDEC method)	IFSM	240							A
Forward Voltage per element @ IF =12.5A	VFM	1.1							V
Peak Reverse Current @TC = 25℃ **at Rated DC Blocking Voltage @ TC = 125℃**	IR	10 500							μA
I2t Rating for Fusing (t < 8.3ms) (Note 1)	I2t	510							A2s
Typical Junction Capacitance per Element (Note 2)	Cj	85							pF
Typical Thermal Resistance, Junction to Case (Note 3)	R_JC	0.6							℃/W
Operating and Storage Temperature Range	Tj, TSTG	-65 to +150							℃

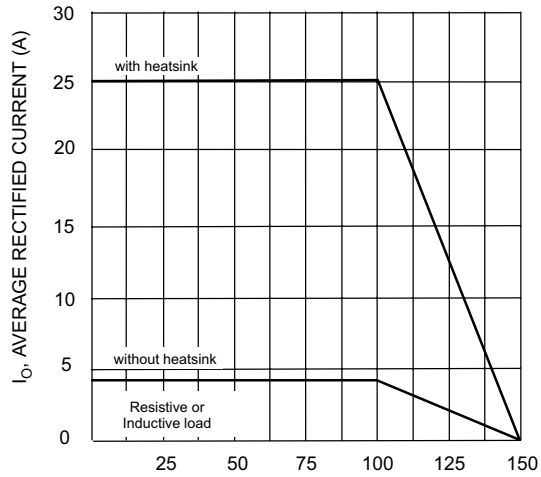
Notes: 1. Non-repetitive, for t > 1ms and < 8.3 ms.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

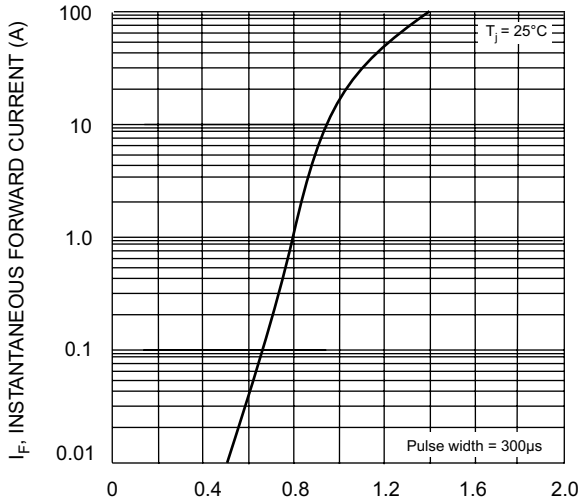
3. Thermal resistance from junction to case per element. Unit mounted on 220 x 220 x 1.6mm aluminum plate heat sink.

DEVICE CHARACTERISTICS

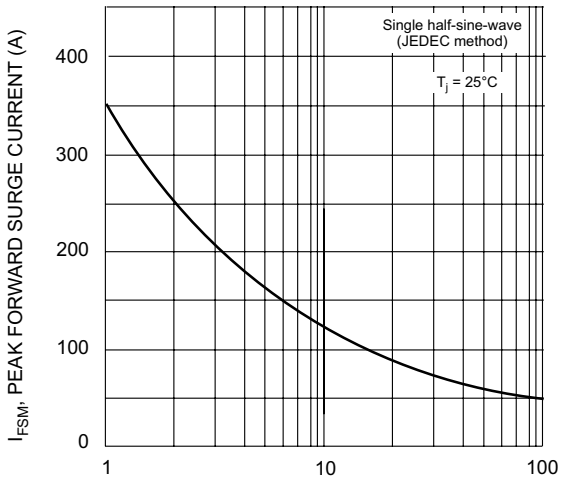
GBJ25005 THRU GBJ2510



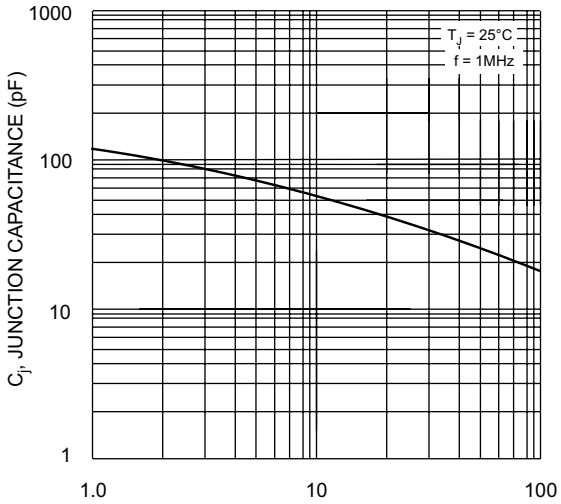
T_C, CASE TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



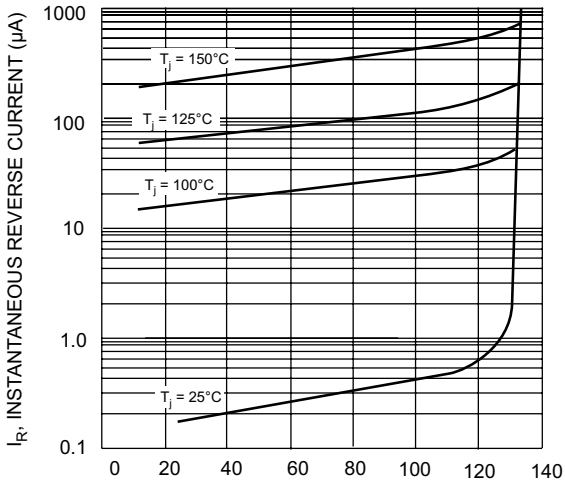
V_F, INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Maximum Non-Repetitive Surge Current



V_R, REVERSE VOLTAGE (V)
Fig. 4 Typical Junction Capacitance



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
Fig. 5 Typical Reverse Characteristics