SENSITRON
SEMICONDUCTOR

GBU8A-G – GBU8K-G

8.0A GLASS PASSIVATED BRIDGE RECTIFIER

Data Sheet 1415, Rev.A

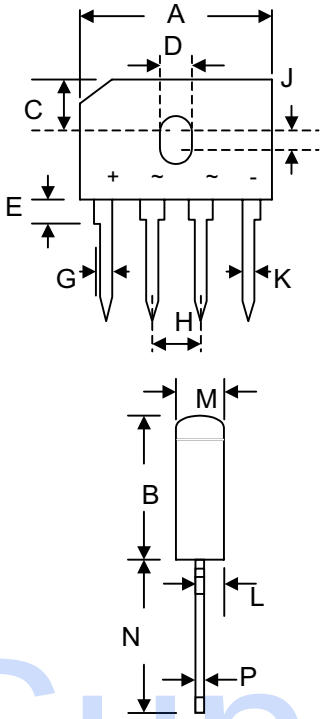
Green Products

Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- UL Recognized File # E223064
- Green Products in Compliance with the RoHS Directive

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 4.0 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



GBU				
Dim	Min	Max	Min	Max
A	21.8	22.3	0.858	0.878
B	18.30	18.80	0.720	0.740
C	7.40	7.90	0.291	0.311
D	3.50	4.10	0.138	0.161
E	1.52	2.03	0.060	0.080
G	2.16	2.54	0.085	0.1
H	4.83	5.33	0.190	0.210
J	1.65	2.16	0.065	0.085
K	1.65	2.03	0.065	0.080
L	0.76	1.02	0.030	0.040
M	3.30	3.56	0.130	0.140
N	17.50	18.00	0.689	0.709
P	0.46	0.56	0.018	0.022
	In mm		In inch	

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Characteristic	Symbol	GBU8A-G	GBU8B-G	GBU8D-G	GBU8G-G	GBU8J-G	GBU8K-G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	V
Average Rectified Output Current @T_C = 100°C @T_A = 45°C	I_O	8.0 6.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200						A
I^2t Rating for Fusing (t < 8.35ms)	I^2t	166						A^2s
Forward Voltage (per element) @I_F = 4.0A	V_{FM}	1.0						V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_C = 100°C	I_R	5.0 500						μA
Typical Thermal Resistance (per leg) (Note 1)	$R_{\theta JA}$	18.0						K/W
Typical Thermal Resistance (per leg) (Note 2)	$R_{\theta JC}$	3.0						K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150						°C

Note: 1. Thermal resistance junction to ambient, mounted on PCB at 9.5mm lead length with 12mm^2 copper pads.
2. Thermal resistance junction to case, mounted on 7.5 x 7.5 x 0.3cm thick AL plate.

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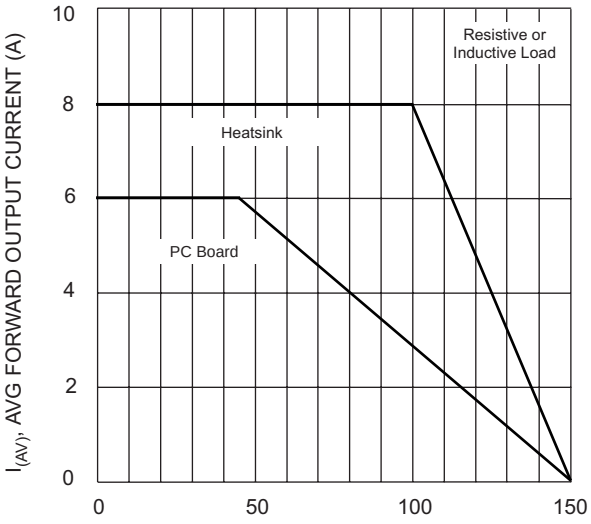

Fig. 1 Forward Current Derating Curve

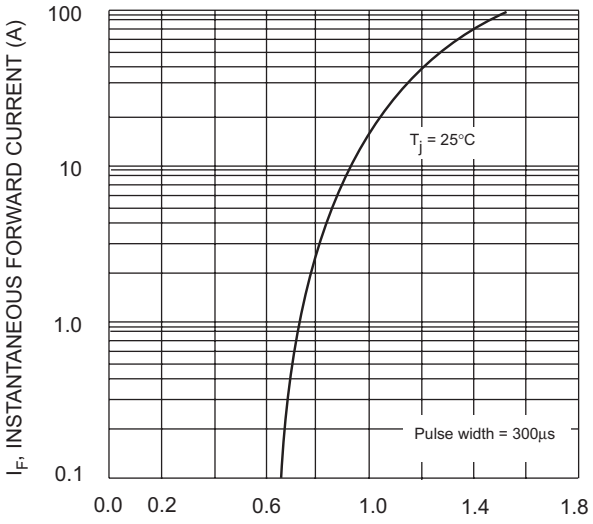

Fig. 2 Typical Forward Characteristics, per element

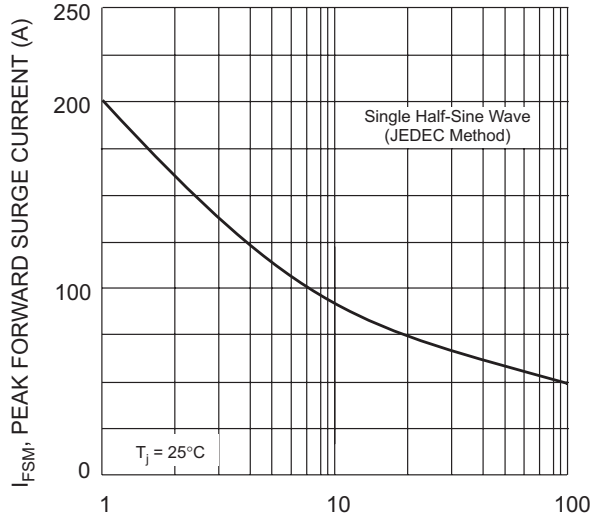

Fig. 3 Maximum Non-Repetitive Surge Current

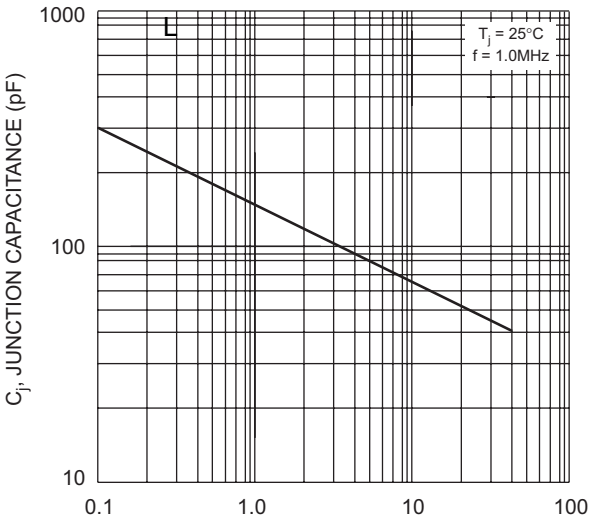

Fig. 4 Typical Junction Capacitance

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