SEMICONDUCTOR

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

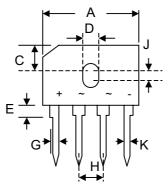
 Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

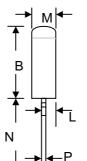
Polarity: As Marked on Body

• Weight: 4.0 grams (approx.)

Mounting Position: Any

Marking: Type Number





GBU											
Dim	Min	Max	Min	Max							
Α	21.8	22.3	0.858	0.878							
В	18.30	18.80	0.720	0.740							
С	7.40	7.90	0.291	0.311							
D	3.50	4.10	0.138	0.161							
Е	1.52	2.03	0.060	0.080							
G	2.16	2.54	0.085	0.1							
Н	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							
Р	0.46	0.56	0.018	0.022							
	ln i	mm	In inch								

Maximum Ratings and Electrical Characteristics @TA=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	VRRM VRWM VR	50	100	200	400	600	800	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	V
Average Rectified Output Current @T _C = 100°C @T _A = 45°C	lo	8.0 6.0						Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	200						А
I ² t Rating for Fusing (t < 8.35ms)	I ² t	166						A ² s
Forward Voltage (per element) @I _F = 4.0A	VFM	1.0						V
	lR	5.0 500						μΑ
Typical Thermal Resistance (per leg) (Note 1)	R_{θ} JA	18.0						K/W
Typical Thermal Resistance (per leg) (Note 2)	RθJC	3.0						K/W
Operating and Storage Temperature Range	Тј, Тѕтс	-55 to +150					°C	

Note: 1. Thermal resistance junction to ambient, mounted on PCB at 9.5mm lead length with 12mm² 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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Data Sheet 1415, Rev.B

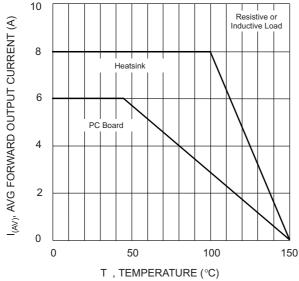
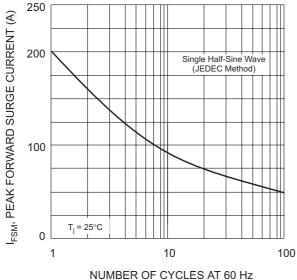
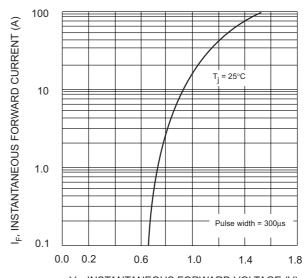


Fig. 1 Forward Current Derating Curve

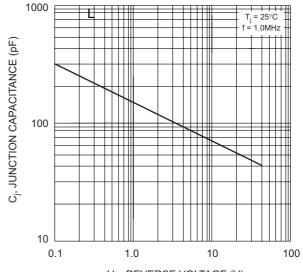


NUMBER OF CYCLES AT 60 Hz Fig. 3 Maximum Non-Repetitive Surge Current

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 V_{F} , INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics, per element



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

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