8A STANDARD RECOVERY BRIDGE RECTIFIER

Product Summary

V_{RRM} (V)	I_F (A)	V_F Max (V) @ I_F = 4A	I_R Max (μA)
50/100/200/ 400/600/800/1000	8.0	1.0	5

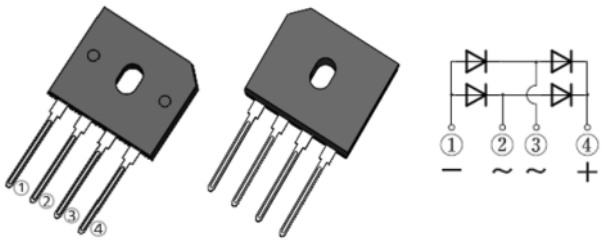
Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500V_{RMS}
- Low Reverse Leakage Current
- Surge Overload Rating to 200A Peak
- Ideal for Printed Circuit Board Applications
- UL Recognized File #E95060
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please contact us or your local Diodes representative. https://www.diodes.com/quality/product-definitions/**

Mechanical Data

- Package: GBU
- Package Material: Plastic Material, UL Flammability Classification 94V-0
- Terminals: Tin Finish. Solderable per MIL-STD-202, Method 208 e3
- Polarity: Marked on Body
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 5.0 Inch-Pounds Maximum
- Weight: 3.7 grams (Approximate)

GBU

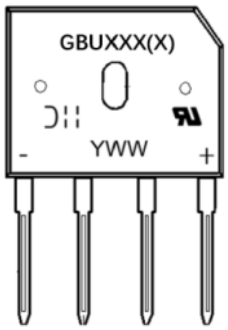


Ordering Information (Note 3)

Orderable Part Number	Package	Packing	
		Qty.	Carrier
GBU8005	GBU	20	Tube
GBU801	GBU	20	Tube
GBU802	GBU	20	Tube
GBU804	GBU	20	Tube
GBU806	GBU	20	Tube
GBU808	GBU	20	Tube
GBU810	GBU	20	Tube

Notes:
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See https://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. For packaging details, go to our website at https://www.diodes.com/design/support/packaging/diodes-packaging/.

Marking Information



GBUXXX = Product Type Marking Code, ex: GBU801, GBU802, GBJ804, GBU806, GBU808, GBU810
GBUXXXX = Product Type Marking Code, ex: GBU8005
= Manufacturer's Code Marking
YWW = Date Code Marking
Y = Last Digit of Year (ex: 5 = 2025)
WW = Week Code (01 to 53)

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Maximum Ratings (@ 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	GBU8005	GBU801	GBU802	GBU804	GBU806	GBU808	GB810	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Average Forward Rectified Current (Note 4) @ T_C = +100°C	$I_{F(AV)}$	8.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	200							A
I^2t Rating for Fusing (t = 8.3ms)	I^2t	166							A^2s
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Test Conditions		Symbol	Min	Typ	Max	Unit
Breakdown Voltage	I_R = 5μA, T_J = +25°C		V_B	50/100/200/400 /600/800/1000	—	—	V
Forward Voltage	I_F = 4.0A, T_J = +25°C		V_F	—	—	1.0	V
Leakage Current	V_R at Rated	T_J = +25°C T_J = +125°C	I_R	— —	— —	5 500	μA
Typical Junction Capacitance (Note 5)			C_T	130			pF

Thermal Characteristics

Characteristic	Symbol	Typ	Unit
Typical Thermal Resistance (Note 4)	$R_{\theta JC}$	2.2	°C/W

Notes: 4. Unit mounted on 50mm x 50mm x 1.6mm copper plate heatsink.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

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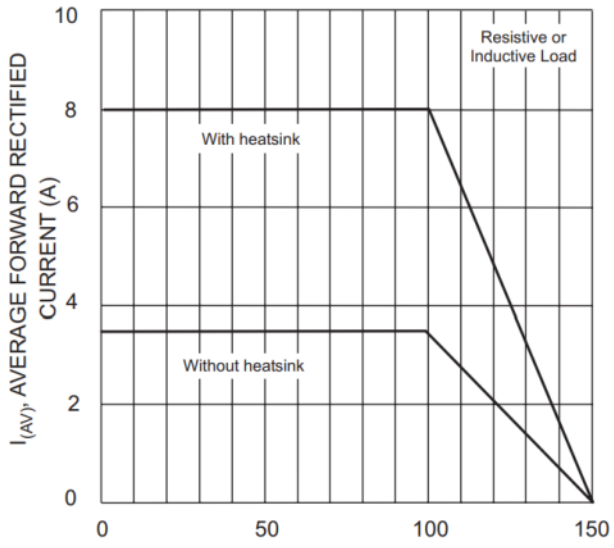


Fig. 1 Forward Current Derating Curve

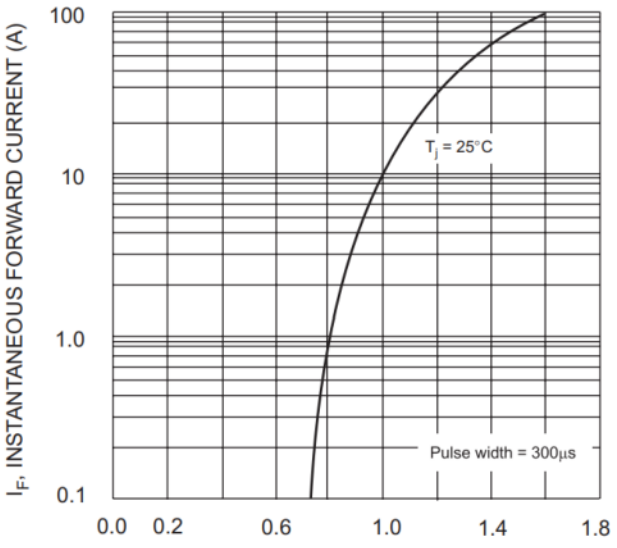


Fig. 2 Typical Forward Characteristics, per element

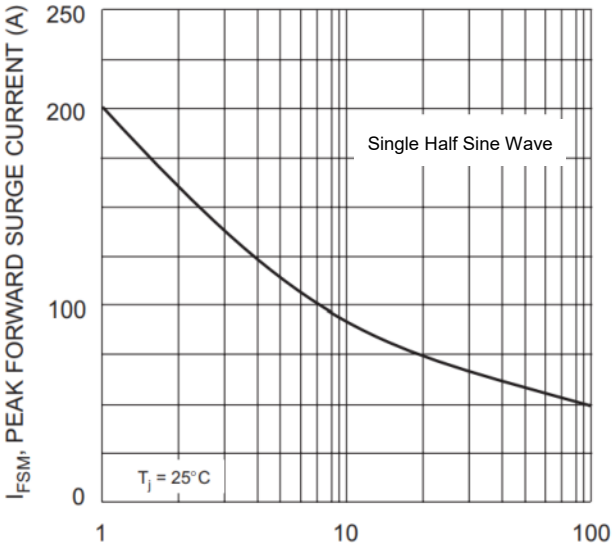


Fig. 3 Maximum Non-Repetitive Surge Current

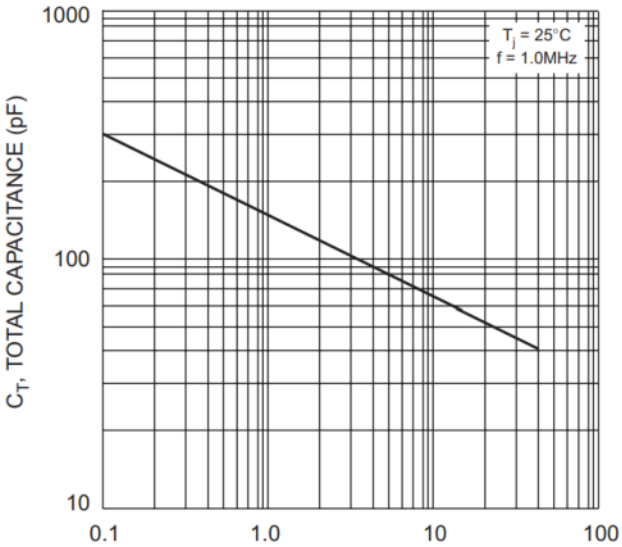


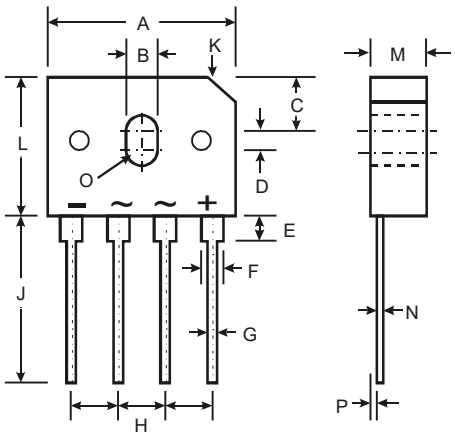
Fig. 4 Typical Total Capacitance, per element

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Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

GBU



GBU		
Dim	**Min**	**Max**
A	21.8	22.3
B	3.5	4.1
C	7.4	7.9
D	1.65	2.16
E	2.25	2.75
F	1.95	2.35
G	1.02	1.27
H	4.83	5.33
J	17.5	18.0
K	3.2 X 45°	
L	18.3	18.8
M	3.30	3.56
N	0.46	0.56
O	1.90R	
P	0.76	1.0
All Dimensions in mm		

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