

# GBU8005 - GBU810

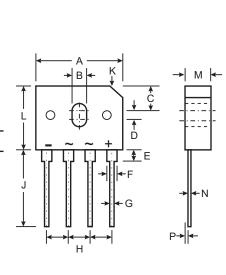
# 8.0A GLASS PASSIVATED BRIDGE RECTIFIER

### **Features**

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500VRMS
- Low Reverse Leakage Current
- Surge Overload Rating to 200A Peak
- Ideal for Printed Circuit Board Applications
- UL Listed Under Recognized Component Index, File Number E94661
- Lead Free Finish, RoHS Compliant (Note 4)

#### **Mechanical Data**

- Case: GBU
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish Tin. Solderable per MIL-STD-202, Method 208 (€3)
- Polarity: Marked on Body
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 5.0 Inch-pounds Maximum
- Ordering Information: See Last Page
- Marking: Date Code and Type Number
- Weight: 6.6 grams (approximate)



GBU						
Dim	Min	Max				
Α	21.8	22.3				
В	3.5	4.1				
С	7.4	7.9				
D	1.65	2.16				
Е	2.25	2.75				
F	1.95	2.35				
G	1.02	1.27				
Н	4.83	5.33				
J	17.5	18.0				
к	3.2 X 45°					
L	18.3	18.8				
М	3.30	3.56				
N	0.46	0.56				
Р	0.76	1.0				
All Dimensions in mm						

# Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

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

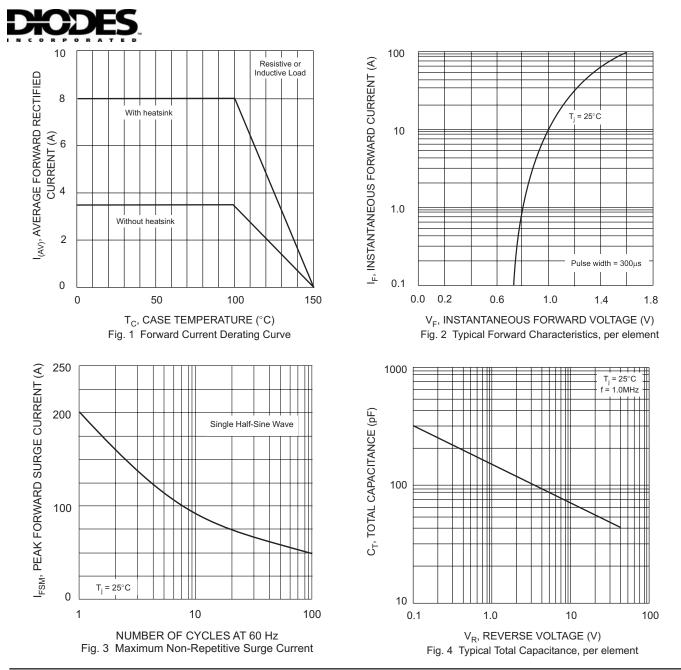
Characteristic	Symbol	GBU 8005	GBU 801	GBU 802	GBU 804	GBU 806	GBU 808	GBU 810	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Forward Rectified Current (Note 1) @ T <sub>C</sub> = 100°C		8.0						Α	
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load		200					А		
Forward Voltage (per element) @ I <sub>F</sub> = 4.0A	V <sub>FM</sub>				1.0				V
$ \begin{array}{ccc} \mbox{Peak Reverse Current} & @ \ T_C = \ 25^\circ C \\ \mbox{at Rated DC Blocking Voltage} & @ \ T_C = \ 125^\circ C \\ \end{array} $		5.0 500					μA		
I <sup>2</sup> t Rating for Fusing (t < 8.3ms) (Note 2)		166					A <sup>2</sup> s		
Typical Total Capacitance per Element (Note 3)		130					pF		
Typical Thermal Resistance Junction to Case (Note 1)		2.2					°C/W		
Operating and Storage Temperature Range		-55 to +150				°C			

Notes: 1. Unit mounted on 50 x 50 x 1.6mm copper plate heatsink.

2. Non-repetitive, for t > 1.0ms and < 8.3ms.

3. Per element, measured at 1.0MHz and applied reverse voltage of 4.0V DC.

4. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.



# Ordering Information (Note 5)

Device	Packaging	Shipping
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: 5. For packaging details, visit our website at http://www.diodes.com/datasheets/ap02008.pdf.



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