



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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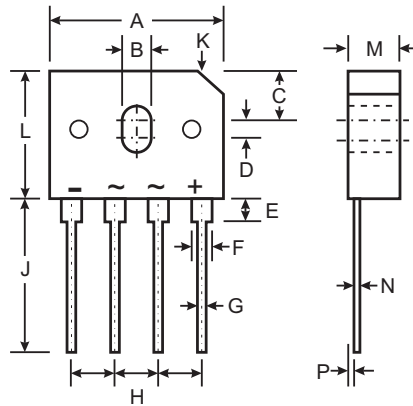


Features

- 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 (e3)
- 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
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
P	0.76	1.0
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @ T_A = 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 _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Forward Rectified Current (Note 1) @ T _C = 100°C	I _(AV)				8.0				A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{FSM}				200				A
Forward Voltage (per element) @ I _F = 4.0A	V _{FM}				1.0				V
Peak Reverse Current @ T _C = 25°C at Rated DC Blocking Voltage @ T _C = 125°C	I _R				5.0 500				μA
I ² t Rating for Fusing (t < 8.3ms) (Note 2)	I ² t				166				A ² s
Typical Total Capacitance per Element (Note 3)	C _T				130				pF
Typical Thermal Resistance Junction to Case (Note 1)	R _{θJC}				2.2				°C/W
Operating and Storage Temperature Range	T _j , T _{STG}				-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*.

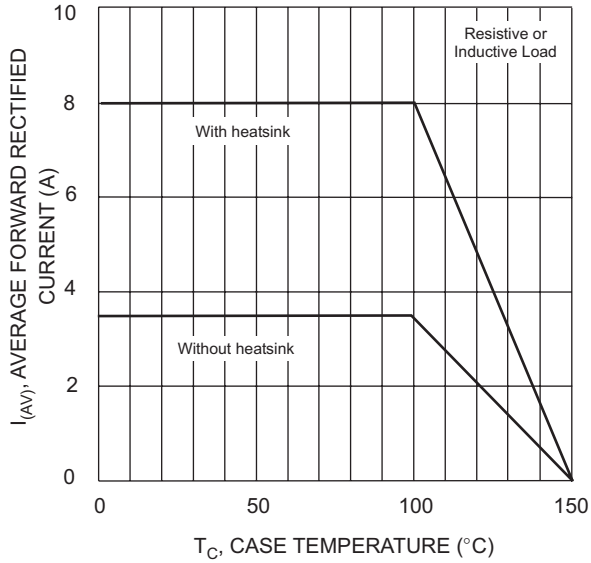


Fig. 1 Forward Current Derating Curve

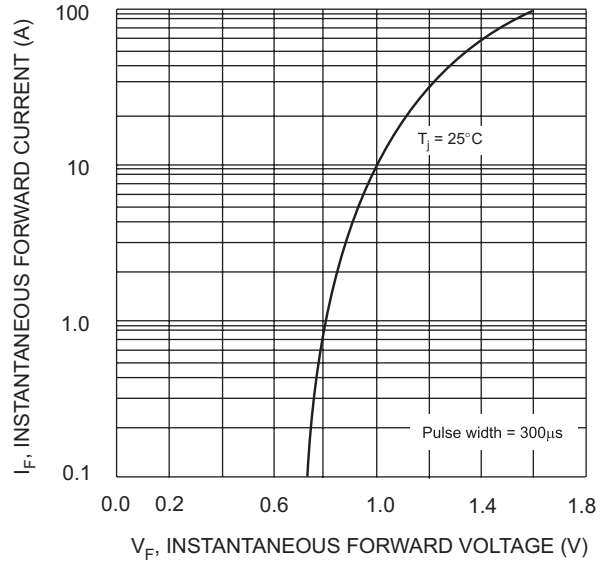


Fig. 2 Typical Forward Characteristics, per element

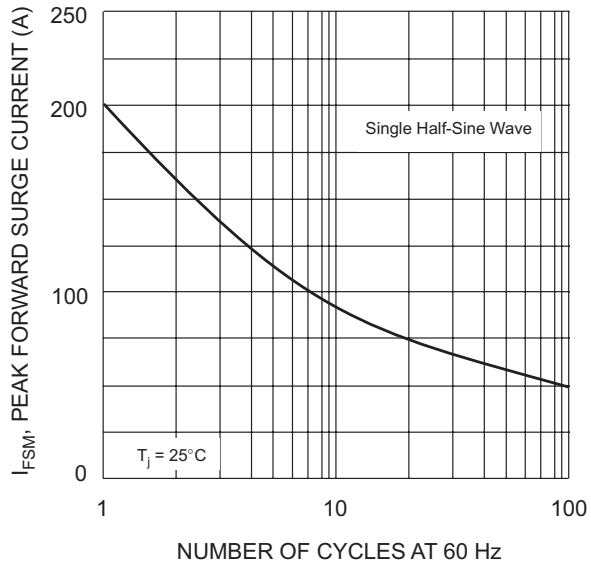


Fig. 3 Maximum Non-Repetitive Surge Current

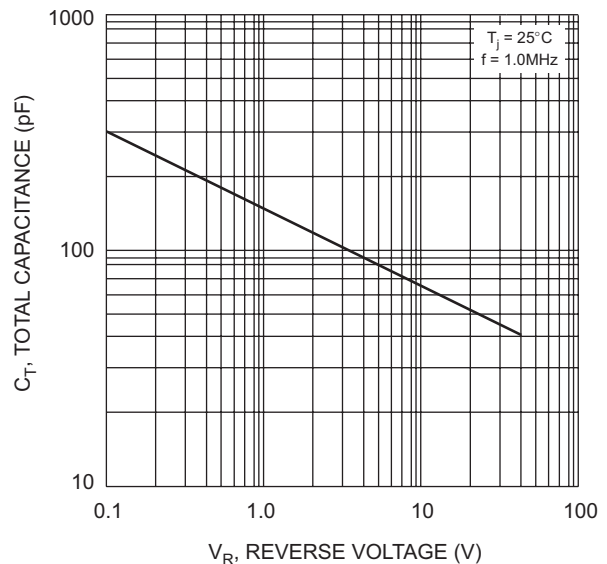


Fig. 4 Typical Total Capacitance, per element

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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