

GBU6005 - GBU610

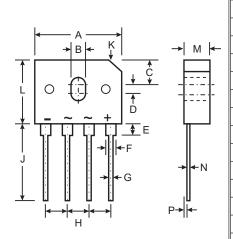
6.0A GLASS PASSIVATED BRIDGE RECTIFIER

Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500 VRMS
- Low Reverse Leakage Current
- Surge Overload Rating to 175A 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
- Terminals: Plated Leads. Solderable per MIL-STD-202, Method 208 @3
- Lead Free Plating (Tin Finish)
- 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			
E	2.25	2.75			
F	1.95	2.35			
G	1.02	1.27			
Н	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			
Р	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 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	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)	6.0			Α				
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load		175				Α			
Forward Voltage (per element) @ I _F = 3.0	V _{FM}				1.0				V
		5.0 500					μА		
I ² t Rating for Fusing (t < 8.3ms) (Note 2)		127					A ² s		
Typical Total Capacitance per Element (Note 3)		100					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 50mm x 50mm x 1.6mm copper plate heatsink.
- 2. Non-repetitive, for t > 1.0ms and < 8.3ms.
- 3. 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.



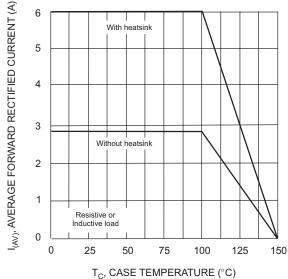
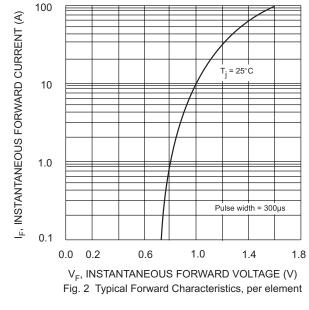
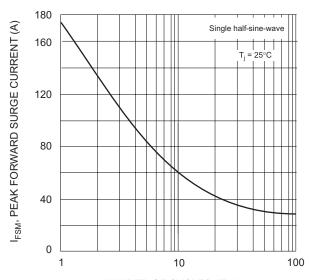


Fig. 1 Forward Current Derating Curve





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

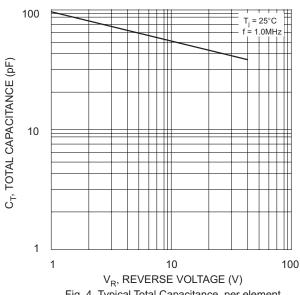


Fig. 4 Typical Total Capacitance, per element

Ordering Information (Note 5)

Device	Packaging	Shipping		
GBU6005	GBU	20/Tube		
GBU601	GBU	20/Tube		
GBU602	GBU	20/Tube		
GBU604	GBU	20/Tube		
GBU606	GBU	20/Tube		
GBU608	GBU	20/Tube		
GBU610	GBU	20/Tube		

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



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