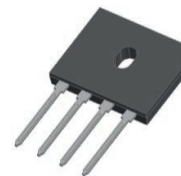


GBU6005 thru GBU610

Glass Passivated Single-Phase Bridge Rectifiers
 Reverse Voltage 50V to 1000V Output Current 6.0A

Features

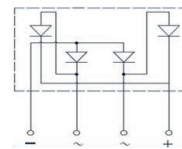
- Glass passivated bridge rectifiers
- Ideal for PCB
- High surge current capability
- Solder dip 275°C max. 7s, per JESD 22-B106



Package: GBU

Mechanical Data

- Case: GBU, molding compound meets UL 94V-0 flammability rating, RoHS-compliant
- Terminals: tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: as marked on body



Schematic Diagram

Applications

General purpose use in AC/DC bridge full wave rectification for monitor, TV, printer, power supply, switching mode power supply, adapter, audio equipment and home appliances applications.

Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Average Rectified Output Current at 60Hz Sinewave, R-Load	$T_C=110^\circ\text{C}$	6.0							A
	$T_A=25^\circ\text{C}$	2.8							
Peak Forward Surge Current Single Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	150							A
Rating for Fusing ($t \leq 8.3\text{ms}$)	I^2t	94							A^2s
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	26							$^\circ\text{C}/\text{W}$
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	3.4							
Operating Junction Temperature Range	T_J	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	Unit
Maximum Instantaneous Forward Voltage	V_F	$I_F=3.0\text{A}$	1.0							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_A=25^\circ\text{C}$	5.0							μA
		$T_A=125^\circ\text{C}$	250							

GBU6005 thru GBU610

Glass Passivated Single-Phase Bridge Rectifiers
 Reverse Voltage 50V to 1000V Output Current 6.0A

Ratings and Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

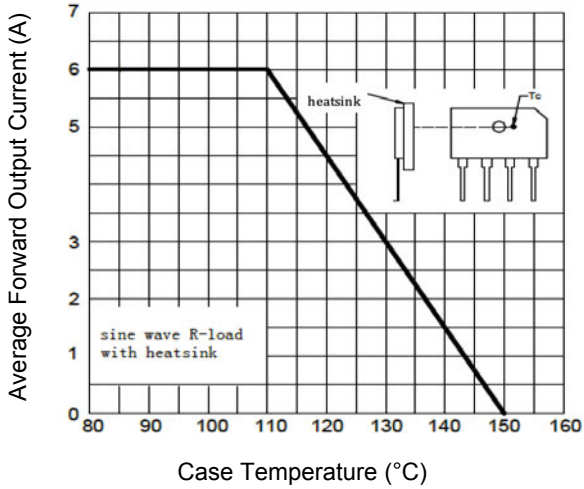


Figure 1. Derating Curve For Output Rectified Current

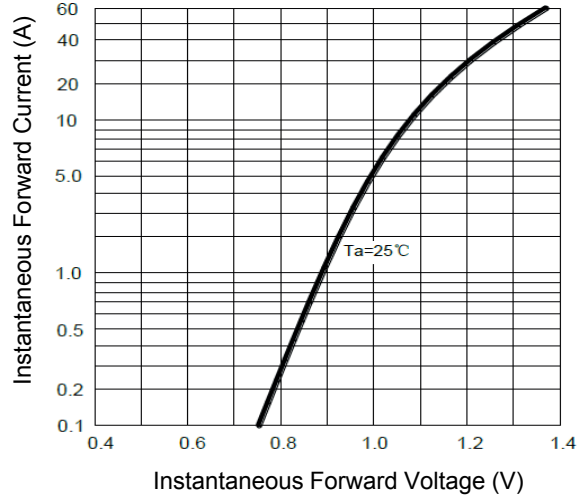


Figure 2. Typical Instantaneous Forward Characteristics

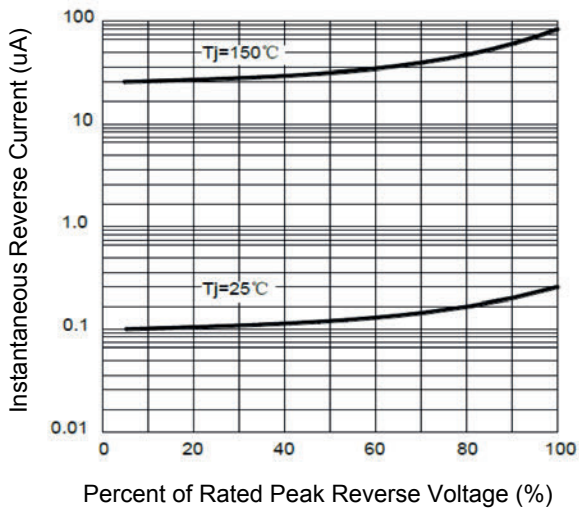


Figure 3. Typical Reak Reverse Voltage Characteristics

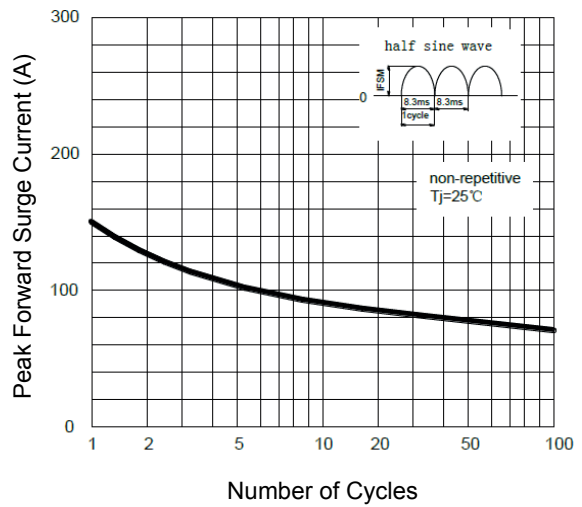
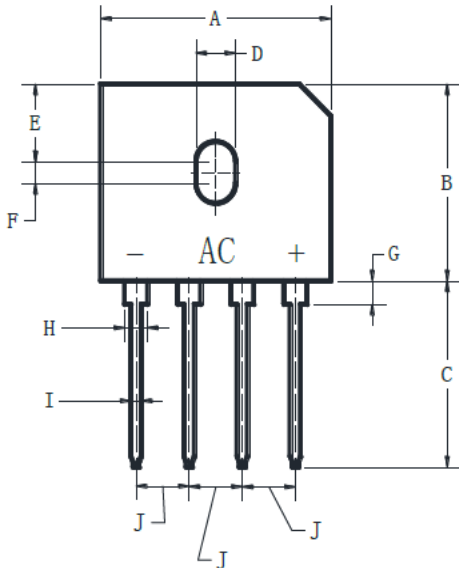


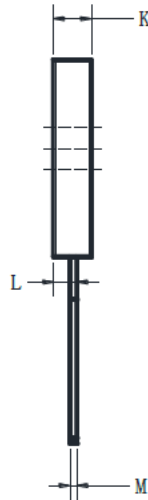
Figure 4. Maximum Non-Repetitive Peak Forward Suger Current

Package Outline Dimensions (GBU)

First angle projection



elevation view



left elevation

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	21.70	22.30	0.854	0.878
B	18.20	19.10	0.717	0.752
C	17.20	18.29	0.677	0.720
D	3.40	4.10	0.134	0.161
E	7.40	7.90	0.291	0.311
F	1.65	2.16	0.065	0.085
G	1.53	2.54	0.060	0.100
H	1.65	2.54	0.065	0.100
I	0.90	1.27	0.035	0.050
J	4.80	5.33	0.189	0.210
K	3.30	3.56	0.130	0.140
L	2.30	3.00	0.091	0.118
M	0.45	0.56	0.018	0.022