GBU6005 THRU GBU610

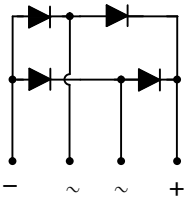
SINGLE PHASE6.0 AMP GLASS PASSIVATED BRIDGE RECTIFIER

Features

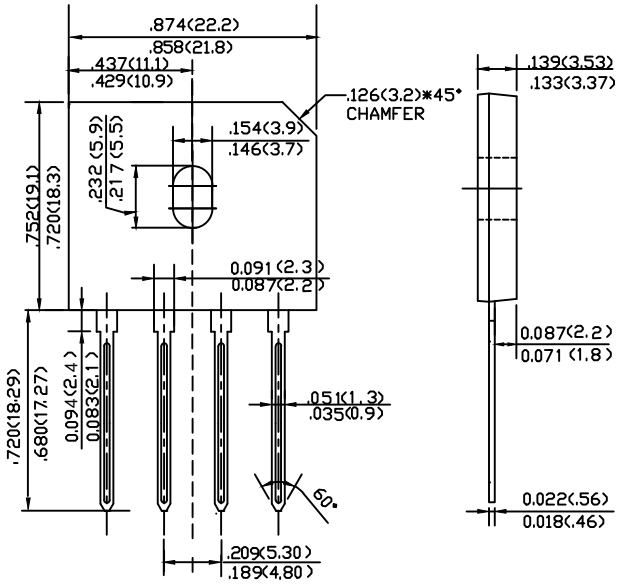
- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: G B U , molded plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS / Lead Free Version



GBU



dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@T_C=90℃	$I_{F(AV)}$	6.0							A
Non-Repetitive Peak Forward Surge Current@T_J=25℃ 8.3ms Single half sine-wave superimposed @T_J=125℃ on rated load (JEDEC Method)	I_{FSM}	130 104							A
Non-Repetitive Peak Forward Surge @T_J=25℃ Current 1 ms Single half sine-wave @T_J=125℃ superimpose on rated load (JEDEC Method)	I_{FSM}	260 208							A
Forward Voltage per element @IF=3.0A @IF=6.0A	V_{FM}	1.0 1.1							V
Peak Reverse Current @T_J=25℃ At Rated DC Blocking Voltage T_J=125℃	I_R	5.0 200							uA
I^2t Rating for fusing (t <8.3ms)	I^2t	70.135							A^2s
Dielectric Strength	Vids	2500							V
The proposed installation torque Max torque	Tor	5.0 8.0							Kgf.cm
Typical Junction Capacitance (Note 2)	C_J	30							pF
Typical Thermal Resistance	$R_{\theta JA}$	22							℃/W
	$R_{\theta JC}$	3.4							
	$R_{\theta JL}$	2.1							
Operating and Storage Temperature Range	T_J,T_{STG}	-55to+150							℃

Note: 1. Mounted on glass epoxy PC board with 1.3mm² solder pad.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

Fig. 1 Output Current Derating Curve

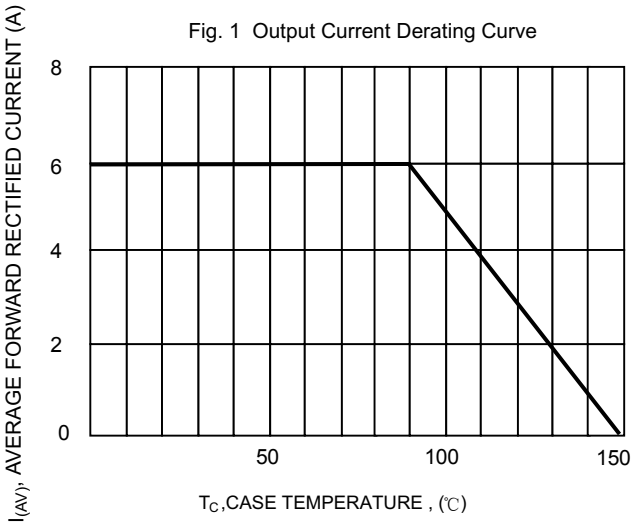


Fig. 2 Typical Forward Characteristics

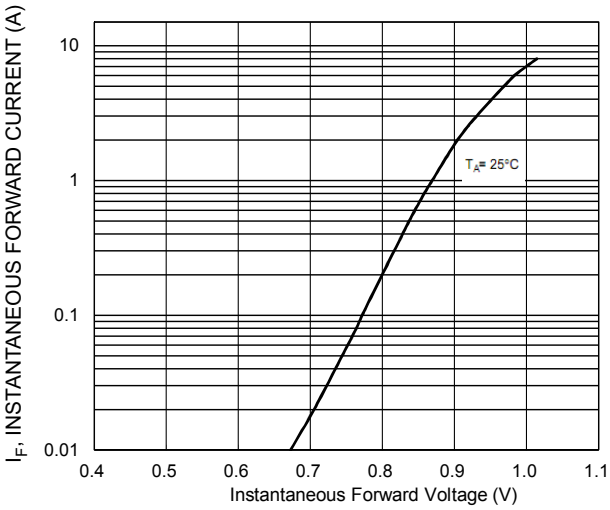


Fig. 3 Maximum Peak Forward Surge Current

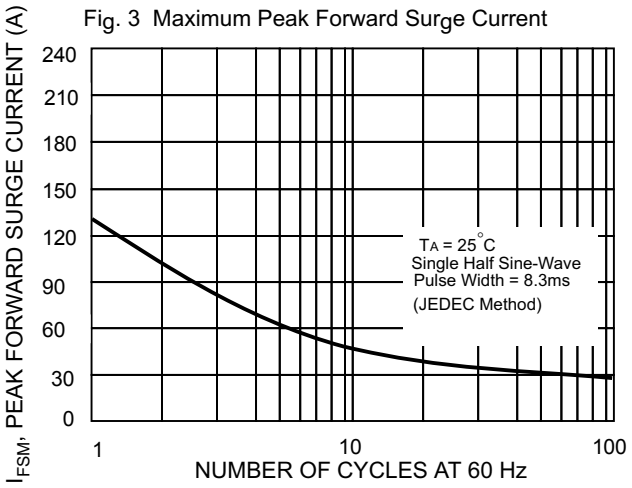


Fig. 4 Typical Junction Capacitance

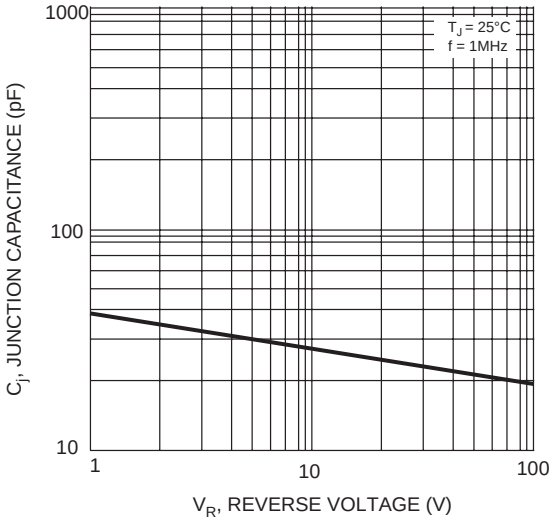
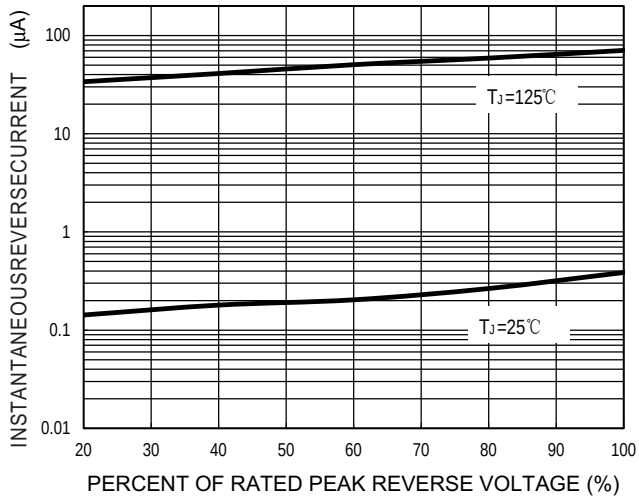


Fig. 5 Typical Reverse Characteristics



Important Notice and Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from XINNUO
- XINNUO reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.
- XINNUO disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- XINNUO does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the here in document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications.

  XINNUO makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown here in are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify XINNUO for any damages resulting from such improper use or sale.
- Since XINNUO uses lot number as the tracking base, please provide the lot number for tracking when complaining.