



GBU35005 THRU GBU3510

Glass Passivated Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts

Forward Current - 35 Amperes

Features

- Glass passivated chip
- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability
- Meet UL flammability classification 94V-0

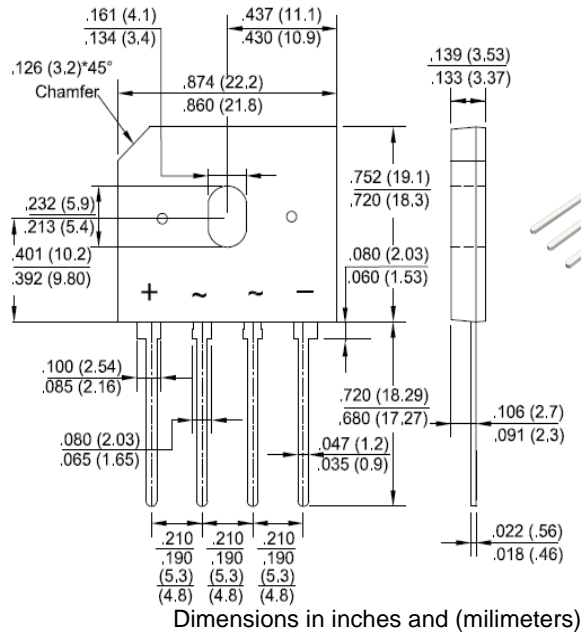
Mechanical Data

- Polarity: Symbol marked on body
- Mounting position: Any

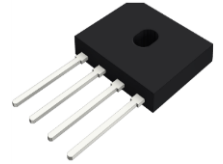
Applications

- General purpose use in AC/DC bridge full wave rectification, for SMPS, lighting ballaster, adapter, etc.

GBU



RoHS COMPLIANT



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	GBU	GBU	GBU	GBU	GBU	GBU	GBU	Unit
		35005	3501	3502	3504	3506	3508	3510	
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
Maximum Average Forward (with heatsink Note 2) Rectified Current @ $T_C=100^\circ\text{C}$ (without heatsink)	$I_{(AV)}$	35.0							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	4.2							A
I^2t Rating for Fusing ($t < 8.3\text{mS}$)	I^2t	400							A^2s
Peak Forward Voltage per Diode at 17.5A DC	V_F	664							V
Maximum DC Reverse Current at Rated @ $T_J=25^\circ\text{C}$	I_R	1.1							μA
DC Blocking Voltage per Diode @ $T_J=125^\circ\text{C}$		5.0							
Typical Junction Capacitance per Diode (Note1)	C_J	500							pF
Typical Thermal Resistance to case (Note2)	$R_{\theta JC}$	70							$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	2.2							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

Notes: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2. Device mounted on 100mm*100mm*1.6mm Cu plate heatsink.

3. The typical data above is for reference only

Rating and Characteristic Curves

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Fig. 1 - Forward Current Derating Curve

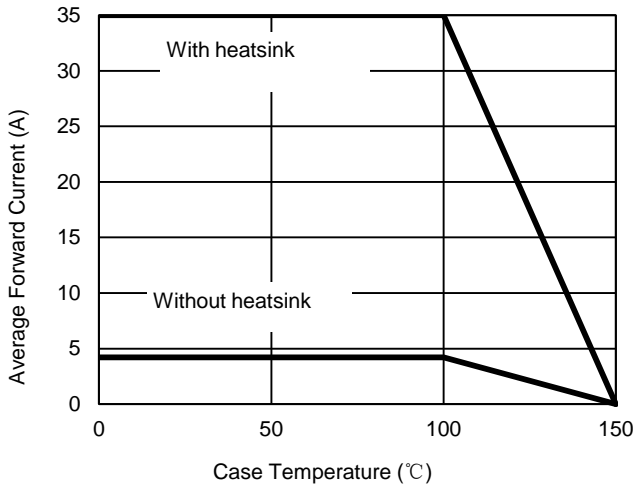


Fig. 2 - Maximum Non-Repetitive Surge Current

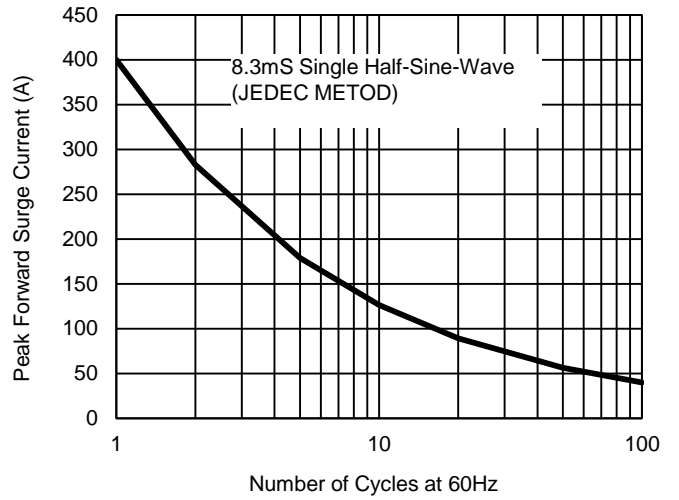


Fig. 3 - Typical Reverse Characteristics

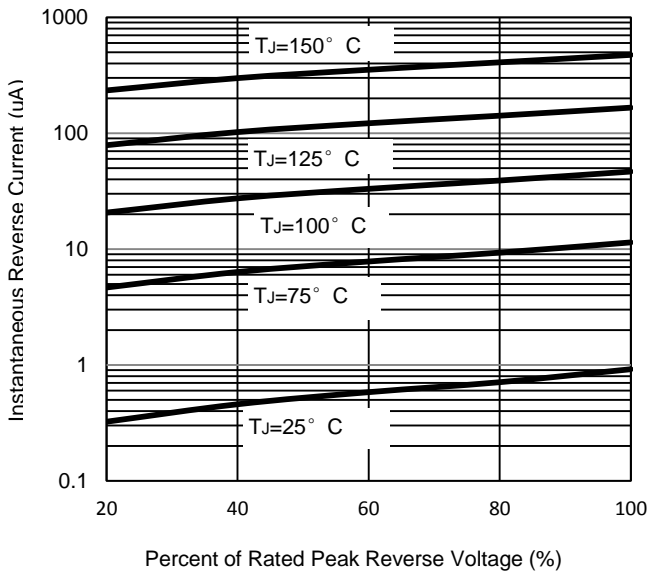
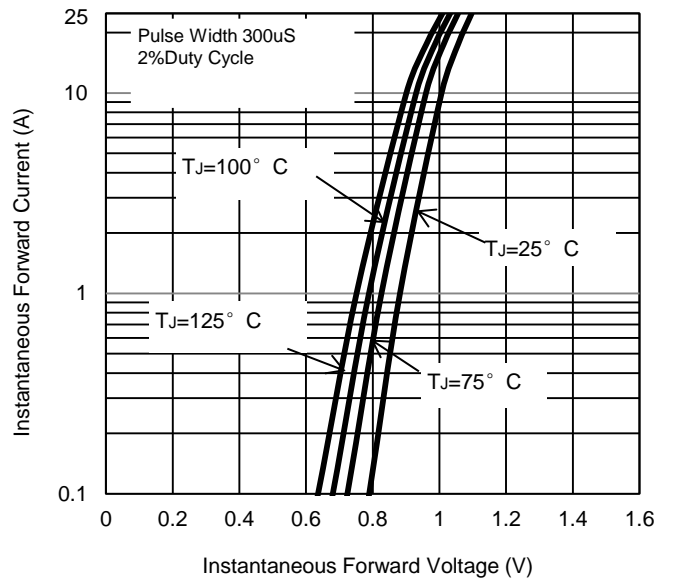


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.