



GBU15005 THRU GBU1510

Glass Passivated Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts
Forward Current - 15 Amperes

Features

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

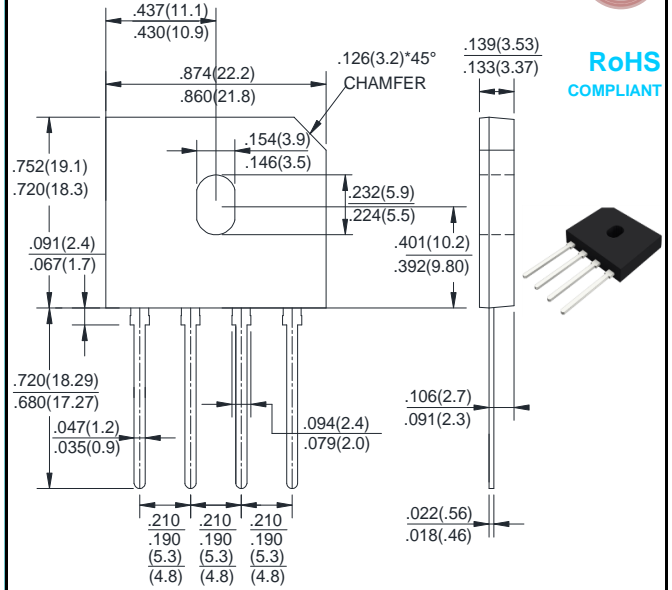
Mechanical Data

- 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



Package Outline Dimensions in Inches (Millimeters)

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	
		15005	1501	1502	1504	1506	1508	1510		
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 Rectified Current (with heatsink Note 2) '@ TC=100°C (without heatsink)	I _(AV)	15.0							3.2	A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	240								A
I ² t Rating for Fusing (t<8.3mS)	I ² t	239								A ² s
Peak Forward Voltage per Diode at 7.5A DC	V _F	1.0								V
Maximum DC Reverse Current at Rated @T _J =25°C	I _R	5.0								μA
DC Blocking Voltage per Diode @T _J =125°C		500								
Typical Junction Capacitance per Diode (Note1)	C _J	70								pF
Typical Thermal Resistance to Ambient (Note2)	R _{θJA}	8								°C/W
Typical Thermal Resistance to case (Note2)	R _{θJC}	2								
Typical Thermal Resistance to lead (Note2)	R _{θJL}	1.5								
Operating Junction Temperature Range	T _J	-55 to +150								°C
Storage Temperature Range	T _{STG}	-55 to +150								°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



Fig. 1 - Forward Current Derating Curve

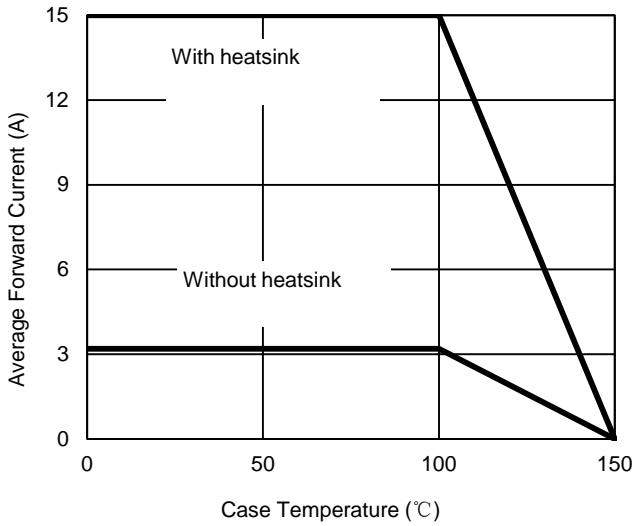


Fig. 2 - Maximum Non-Repetitive Surge Current

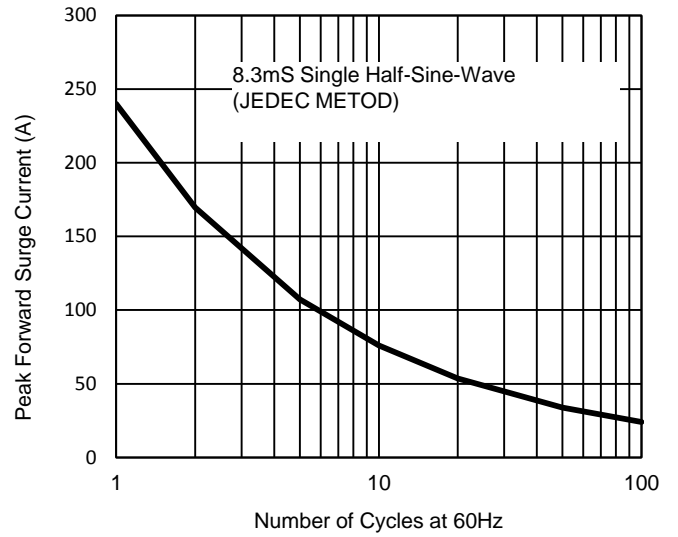


Fig. 3 - Typical Reverse Characteristics

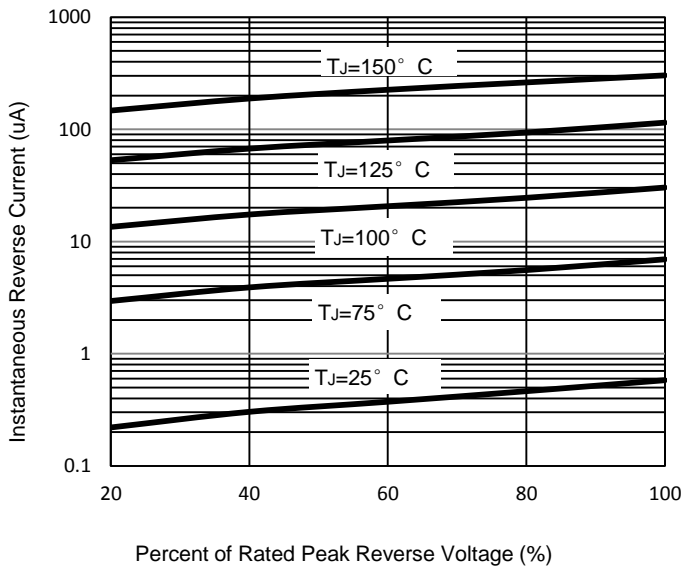


Fig. 4 - Typical Forward Characteristics

