



Glass Passivated Bridge Rectifiers

Reverse Voltage - 600 Volts
Forward Current - 10 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

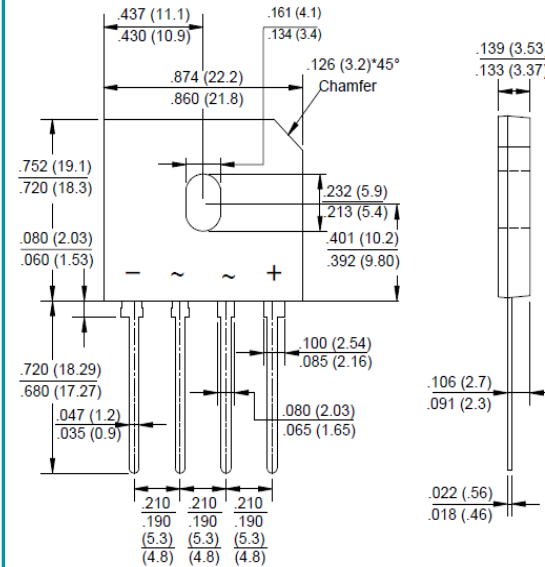
- Polarity: Symbol marked on body
- Mounting position: Any

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

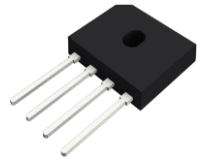
Applications

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

GBU



RoHS COMPLIANT



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	GBU1006L	Unit
Maximum Repetitive Peak Reverse Voltage	VRRM	600	V
Maximum RMS Voltage	VRMS	420	V
Maximum DC Blocking Voltage	VDC	600	V
Maximum Average Forward Rectified Current (with heatsink Note 2) @ TC=100°C (without heatsink)	I(AV)	10.0 3.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	IFSM	240	A
I ² t Rating for Fusing (t<8.3ms)	I ² t	200.9	A ² s
Peak Forward Voltage per Diode at 5A DC	VF	0.95	V
Maximum DC Reverse Current at Rated @T _J =25°C	IR	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}	9	°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

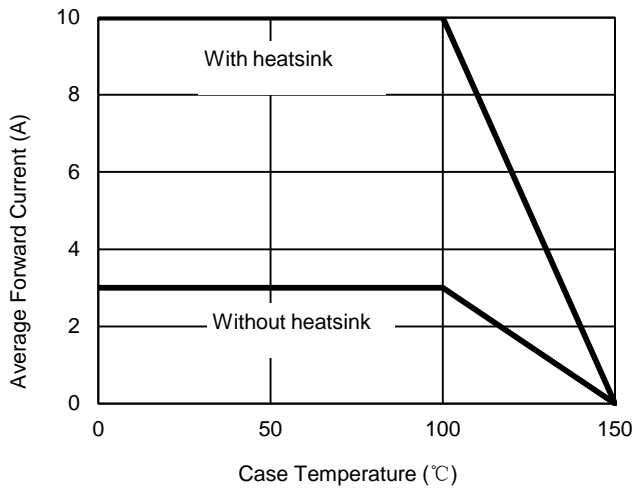


Fig. 2 - Maximum Non-Repetitive Surge Current

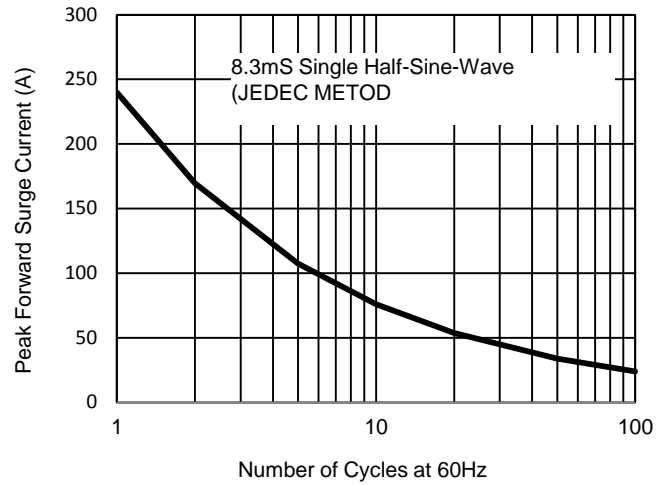


Fig. 3 - Typical Reverse Characteristics

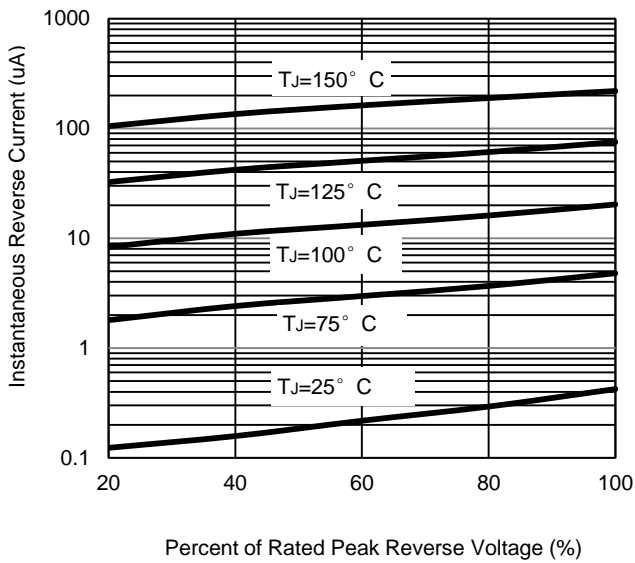


Fig. 4 - Typical Forward Characteristics

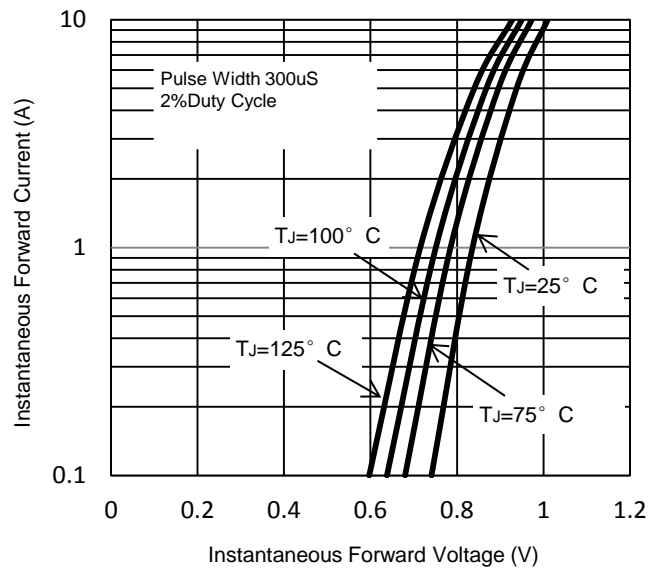
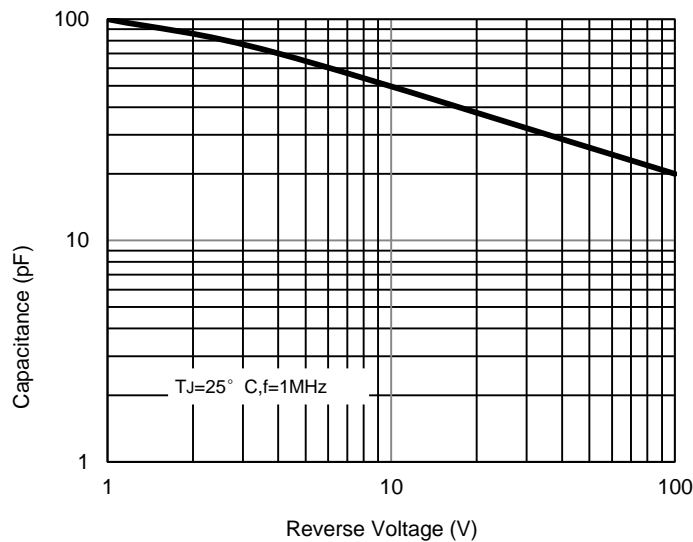


Fig. 5 - Typical Junction Capacitance



The curve above is for reference only.



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