



## Glass Passivated Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts  
Forward Current - 8.0 Amperes

### Features

- Glass passivated chip
- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability
- Meet UL flammability classification 94V-0
- AEC-Q101 qualified

### Mechanical Data

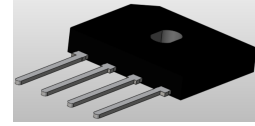
- Polarity: Symbol marked on body
- Mounting position: Any

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

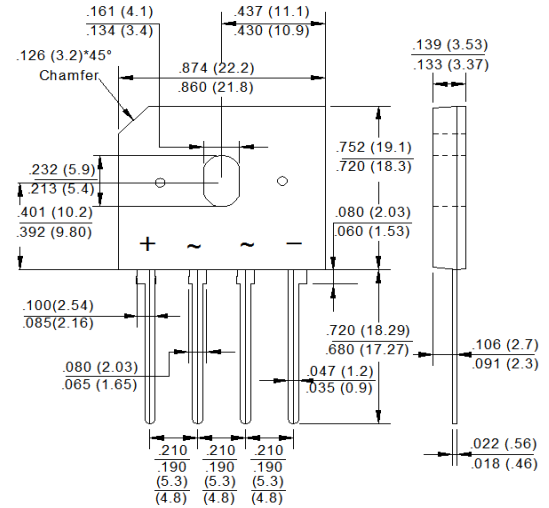
### Applications

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

### GBU



RoHS COMPLIANT



## 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
		8005	801	802	804	806	808	810	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heatsink Note 2)	I <sub(av)< sub=""></sub(av)<>	8.0							A
Rectified Current @ T <sub>c</sub> =100°C (without heatsink)		2.9							
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	220							A
I <sup>2</sup> t Rating for Fusing (t<8.3mS)	I <sup>2</sup> t	200							A <sup>2</sup> s
Peak Forward Voltage per Diode at 4A DC	V <sub>F</sub>	1.0							V
Maximum DC Reverse Current at Rated @T <sub>J</sub> =25°C	I <sub>R</sub>	5.0							μA
DC Blocking Voltage per Diode @T <sub>J</sub> =125°C		500							
Typical Junction Capacitance per Diode (Note1)	C <sub>J</sub>	60							pF
Typical Thermal Resistance to Ambient (Note2)	R <sub>θJA</sub>	10							°C/W
Typical Thermal Resistance to case (Note2)	R <sub>θJC</sub>	2.2							
Typical Thermal Resistance to lead (Note2)	R <sub>θJL</sub>	3							
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

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

2. Device mounted on 75mm\*75mm\*1.6mm Cu plate heatsink.

3. The typical data above is for reference only



Fig. 1 - Forward Current Derating Curve

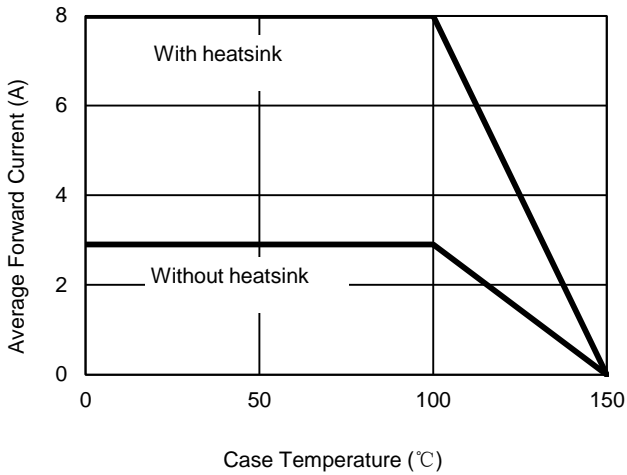


Fig. 2 - Maximum Non-Repetitive Surge Current

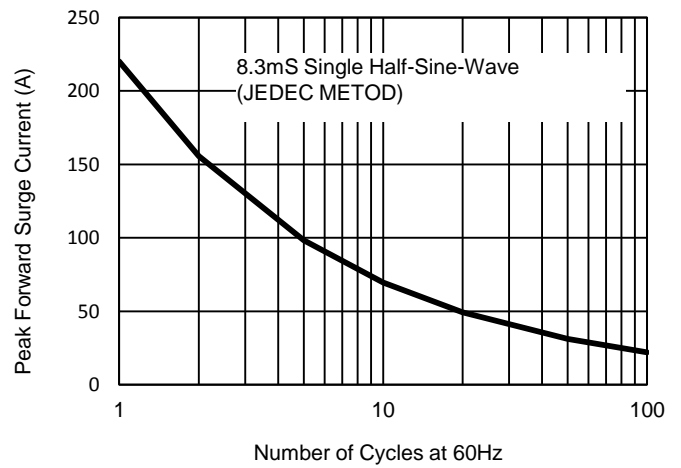


Fig. 3 - Typical Reverse Characteristics

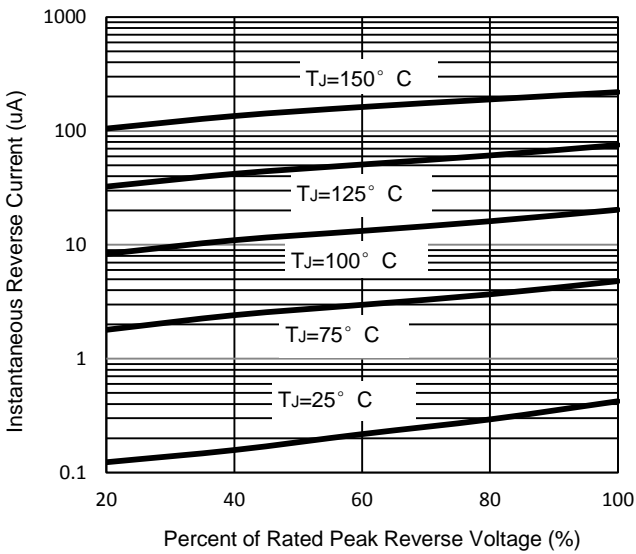


Fig. 4 - Typical Forward Characteristics

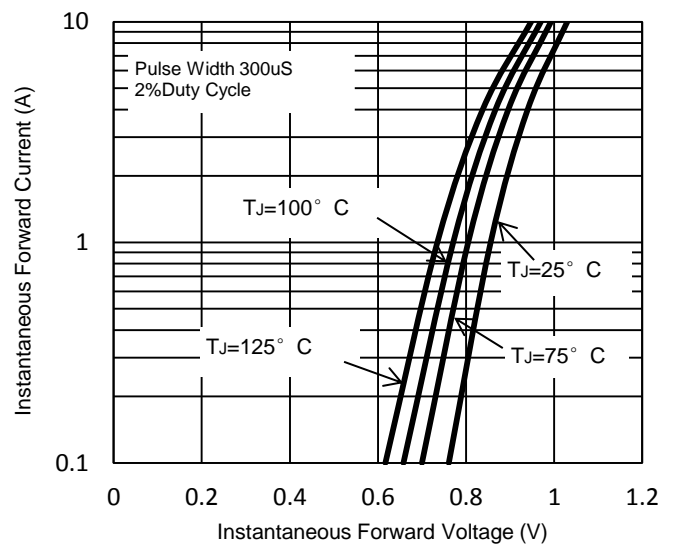
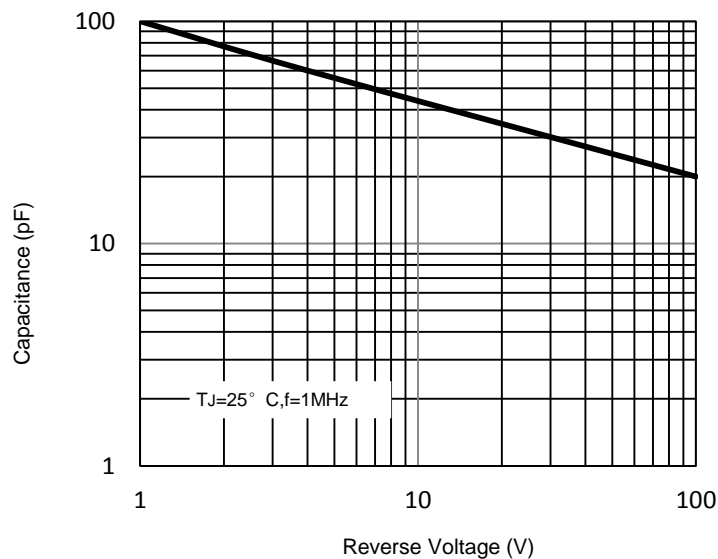


Fig. 5 - Typical Junction Capacitance



The curve above is for reference only.



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