



## Glass Passivated Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts

Forward Current - 6.0 Amperes

### Features

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

### Mechanical Data

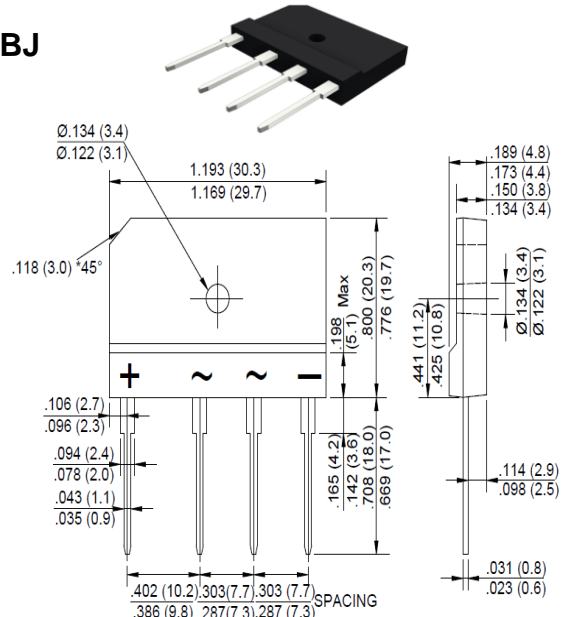
- Polarity: Symbol marked on body
- Mounting position: Any

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.

GBJ



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	GBJ6005	GBJ601	GBJ602	GBJ604	GBJ606	GBJ608	GBJ610	Unit	
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) Rectified Current @ T <sub>c</sub> =100°C (without heatsink)	I <sub>(AV)</sub>	6.0							3.3	A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	175								A
I <sup>2</sup> t Rating for Fusing (t<8.3mS)	I <sup>2</sup> t	127								A <sup>2</sup> s
Peak Forward Voltage per Diode at 3A 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>	55								pF
Typical Thermal Resistance to case (with heatsink (Note2) )	R <sub>θJC</sub>	1.8								°C/W
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

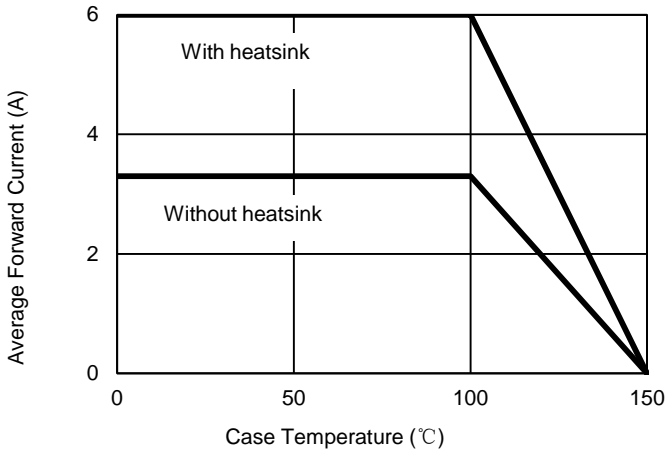


Fig. 2 - Maximum Non-Repetitive Surge Current

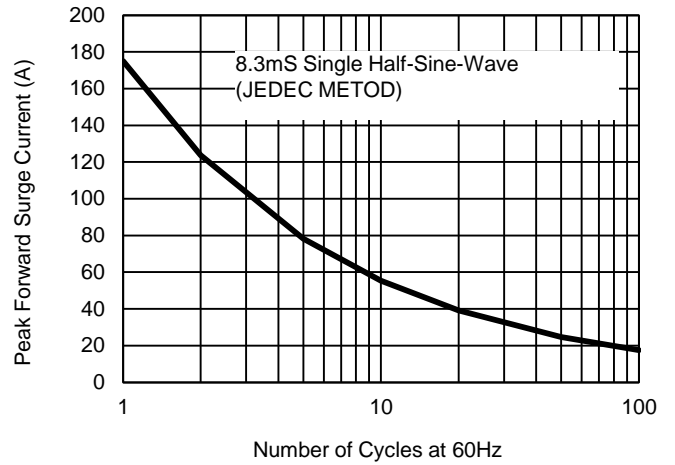


Fig. 3 - Typical Reverse Characteristics

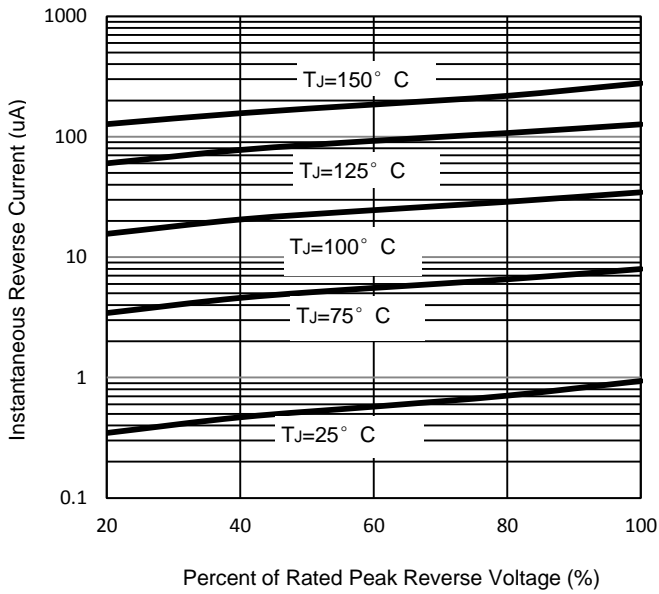


Fig. 4 - Typical Forward Characteristics

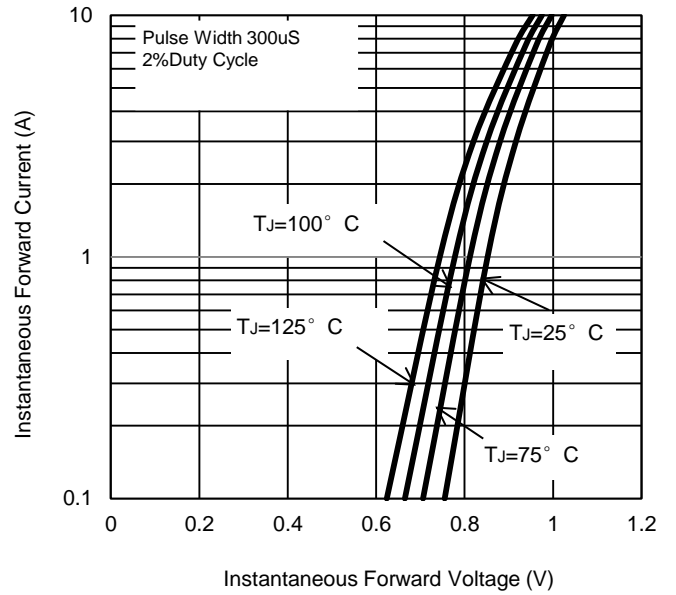
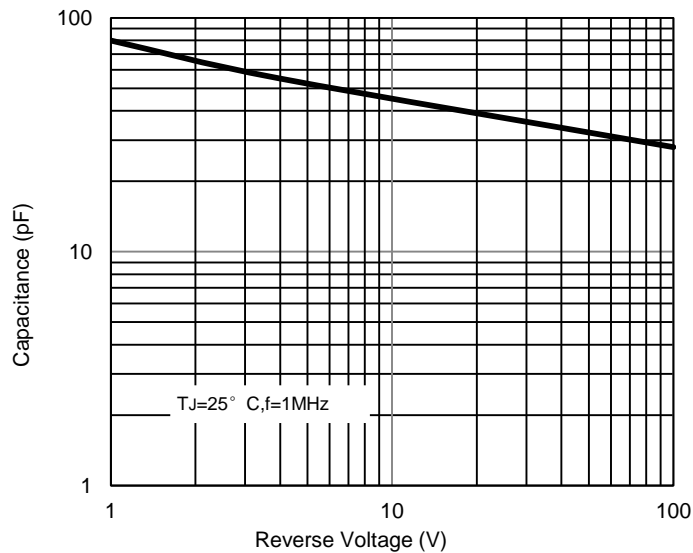


Fig. 5 - Typical Junction Capacitance



The curve above is for reference only.



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ALL specifications and data are subject to be changed without notice to improve reliability function or design or other reasons.

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