

## GBJ6005-GBJ610

Technical Data Data Sheet N1801, Rev. - **Green Products** 

# GBJ6005-GBJ610

# Single-Phase 6.0A Glass Passivated Bridge Rectifier

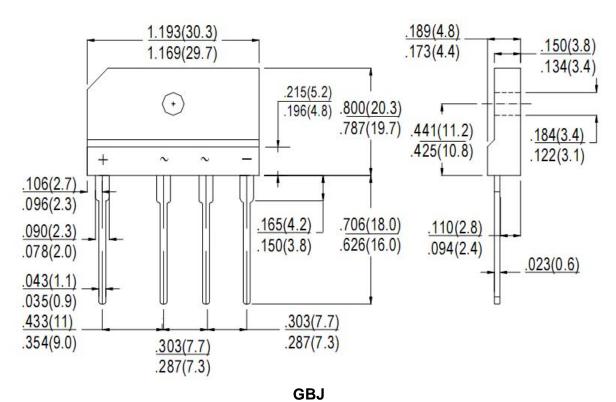
## Features:

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

## **Mechanical Data:**

- Case: GBJ, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting Position: Any
- Lead Free: For RoHS / Lead Free Version

## Mechanical Dimensions: In Inches/mm



MARKING, MOLDING RESIN Marking for Type Number, 1<sup>st</sup> row SSG YYWWL, 2<sup>nd</sup> row Type Number Where YY is the manufacture year WW is the manufacture week code L is the wafer's Lot Number

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# **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%

Maximum Ratings:

Type Number	Symbol	GBJ 6005	GBJ 601	GBJ 602	GBJ 604	GBJ 606	GBJ 608	GBJ 610	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>DC</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Average forward rectified output current (Note 1) $@T_A = 100^{\circ}C$	Ι <sub>ο</sub>	6.0							А
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150							А

## **Electrical Characteristics:**

Type Number	Symbol	GBJ 6005	GBJ 601	GBJ 602	GBJ 604	GBJ 606	GBJ 608	GBJ 610	Unit
Forward Voltage (per element) $@I_F = 3A$ $@I_F = 6A$	$V_{F}$	1.0 1.1							V
Peak Reverse Current $@T_A = 25^{\circ}C$ At Rated DC Blocking Voltage $@T_A = 125^{\circ}C$	I <sub>RM</sub>	5.0 500							μA
Typical Junction Capacitance(per leg) (Note 2)	CJ	45							pF

## **Thermal-Mechanical Specifications:**

Type Number	Symbol	GBJ 6005	GBJ 601	GBJ 602	GBJ 604	GBJ 606	GBJ 608	GBJ 610	Unit
Typical Thermal Resistance (per leg)	$R_{_{ extsf{ heta}JA}}$ $R_{_{ hetaJL}}$	26 2.5							
Operating and Storage Temperature Range	$T_J, T_STG$	-55 to +150							°C
Case Style	GBJ								

Note: 1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.

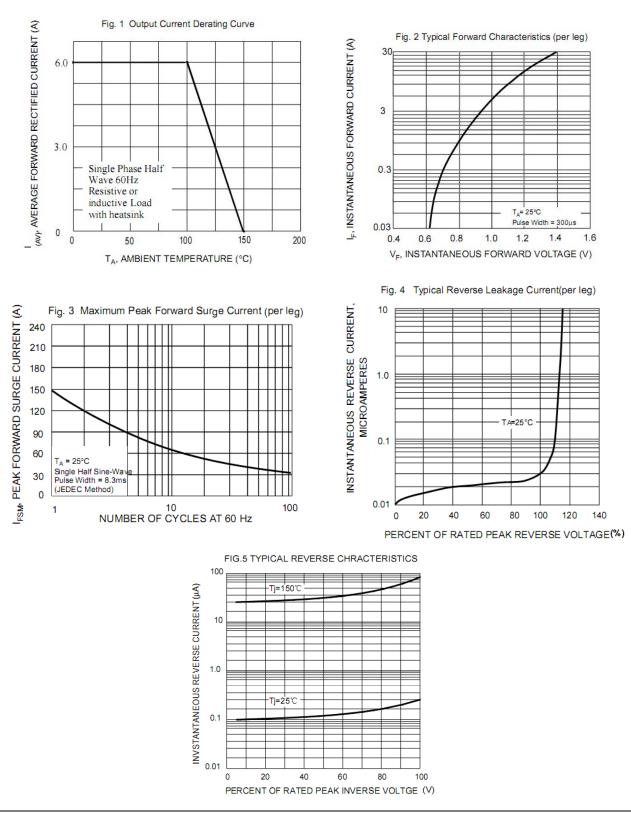
2. Measured at 1.0 MHz and applied reverse voltage of 5.0V D.C.



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