

GBJ10005-GBJ1010

Single-Phase 10.0A Glass Passivated Bridge Rectifier

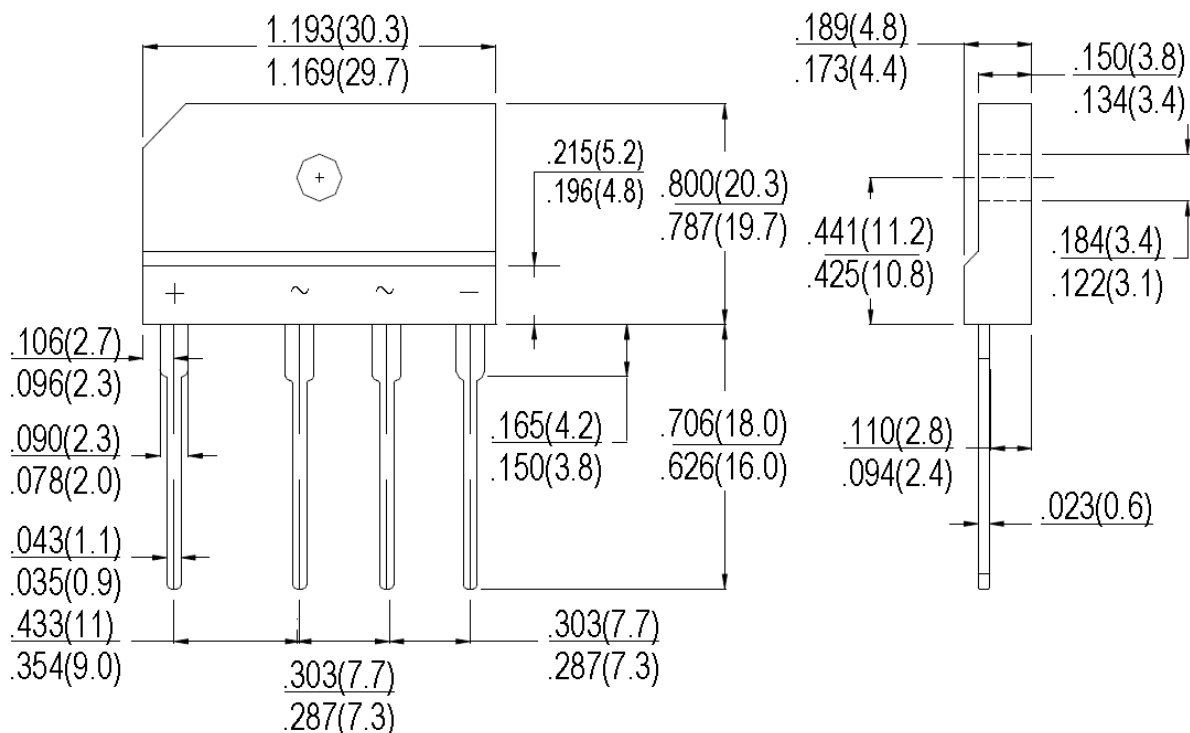
Features:

- 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





GBJ10005 THRU GBJ1010

Technical Data
Data Sheet N1793, Rev. -

Green Products

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 10005	GBJ 1001	GBJ 1002	GBJ 1004	GBJ 1006	GBJ 1008	GBJ 1010	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	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) @ $T_A = 90^\circ\text{C}$	I_O	10.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	175							A

Electrical Characteristics:

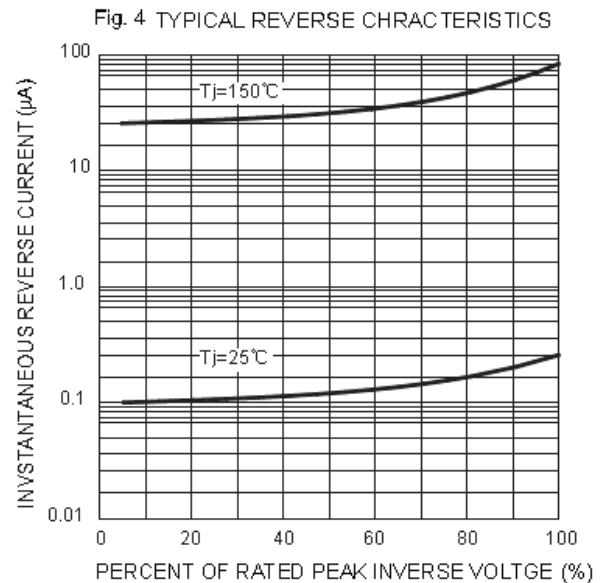
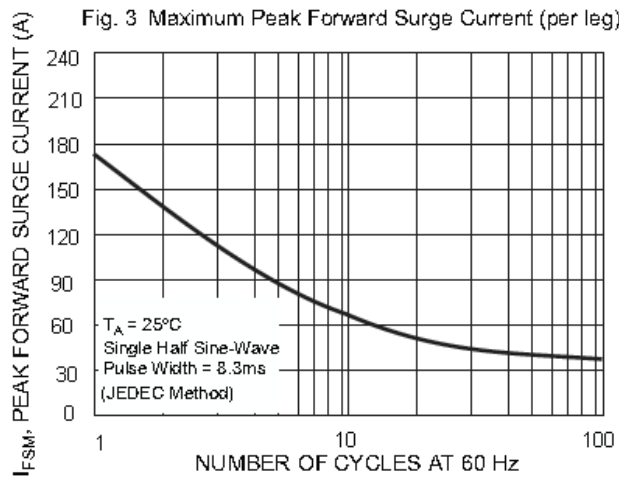
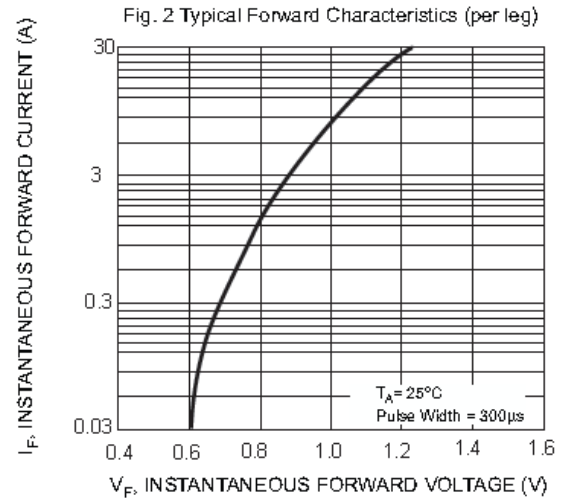
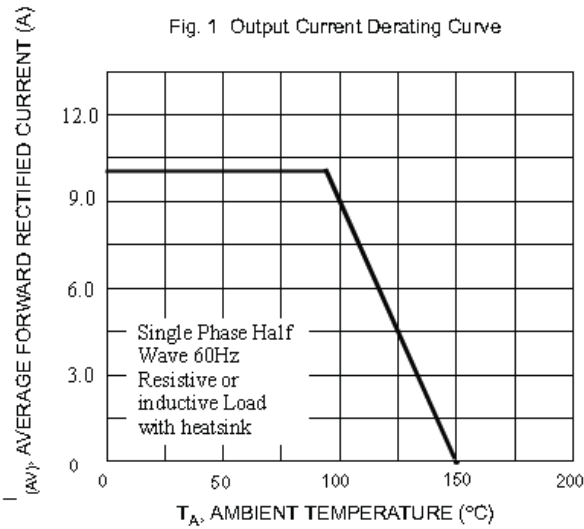
Type Number	Symbol	GBJ 10005	GBJ 1001	GBJ 1002	GBJ 1004	GBJ 1006	GBJ 1008	GBJ 1010	Unit
Forward Voltage (per element) @ $I_F = 5\text{A}$ @ $I_F = 10\text{A}$	V_{FM}	1.0 1.1							V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	I_R	5.0 500							μA
Typical Junction Capacitance(per leg) (Note 2)	C_J	55							pF

Thermal-Mechanical Specifications:

Type Number	Symbol	GBJ 10005	GBJ 1001	GBJ 1002	GBJ 1004	GBJ 1006	GBJ 1008	GBJ 1010	Unit
Between Junction and Ambient, Without heatsink	$R_{\theta JA}$	14							$^\circ\text{C}/\text{W}$
Between Junction and Case, Without heatsink	$R_{\theta JC}$	2.3							
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$
Case Style		GBJ							

Note: 1. Mounted on glass epoxy PC board with 1.3mm² solder pad.
2. Measured at 1.0 MHz and applied reverse voltage of 5.0V D.C.

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