



THE DATASHEET OF GBJ610TB



GBJ6005-GBJ610

Single-Phase 6.0A Glass Passivated Bridge Rectifier

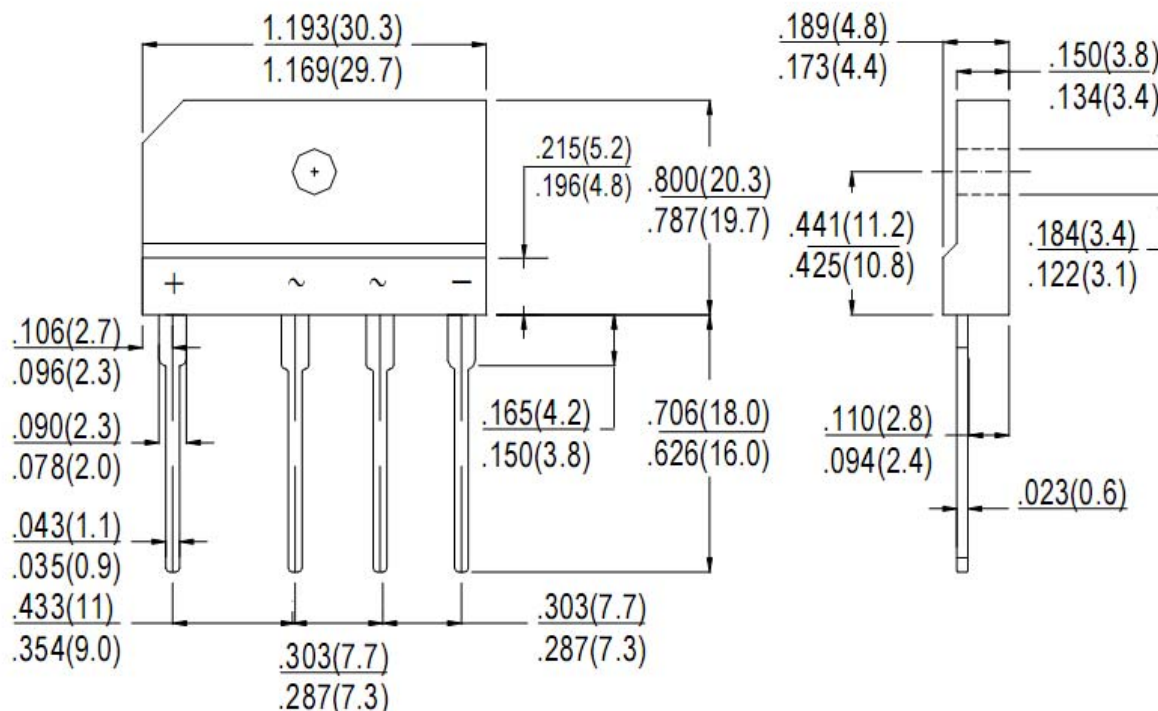
Features:

- 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



GBJ

MARKING, MOLDING RESIN

Marking for Type Number, 1st row SSG YYWWL, 2nd row Type Number
Where YY is the manufacture year
WW is the manufacture week code
L is the wafer's Lot Number

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_{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) @ $T_A = 100^\circ\text{C}$	I_O	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							A

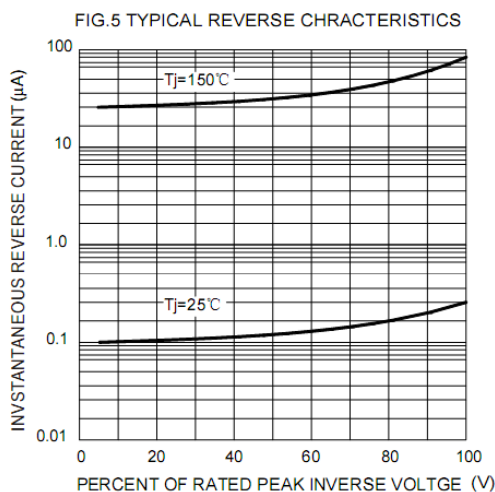
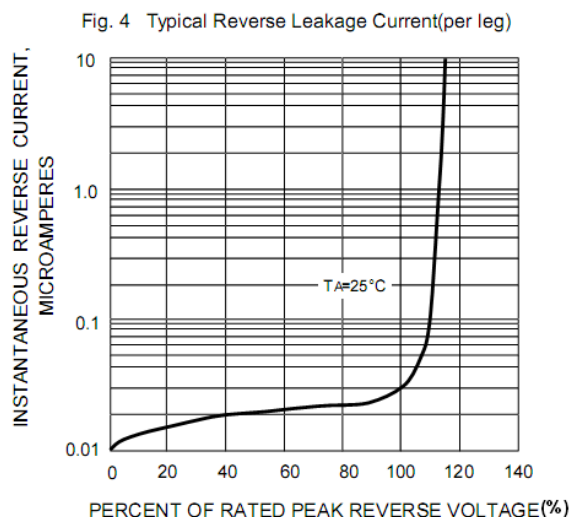
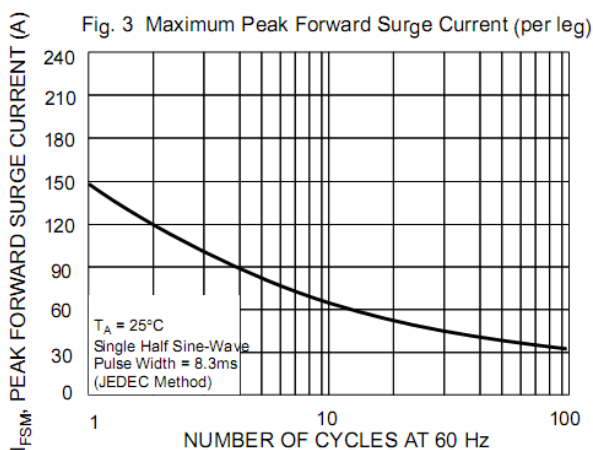
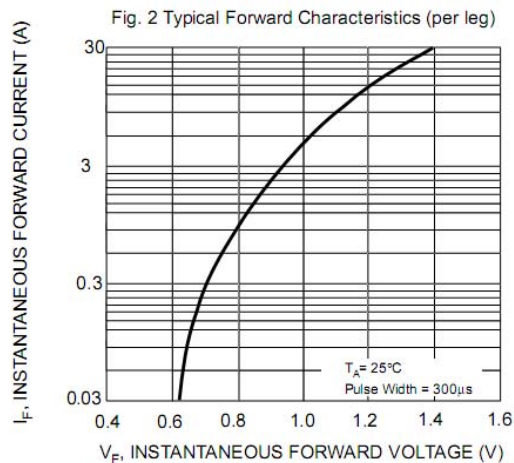
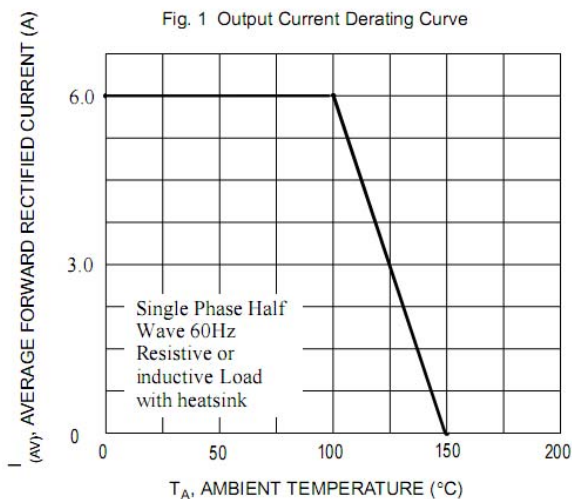
Electrical Characteristics:

Type Number	Symbol	GBJ 6005	GBJ 601	GBJ 602	GBJ 604	GBJ 606	GBJ 608	GBJ 610	Unit	
Forward Voltage (per element) @ $I_F = 3\text{A}$ @ $I_F = 6\text{A}$	V_F	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_{RM}	5.0 500								μA
Typical Junction Capacitance(per leg) (Note 2)	C_J	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)	$R_{\theta JA}$ $R_{\theta JL}$	26 2.5								$^\circ\text{C/W}$
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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