



GBJ6005 THRU GBJ610

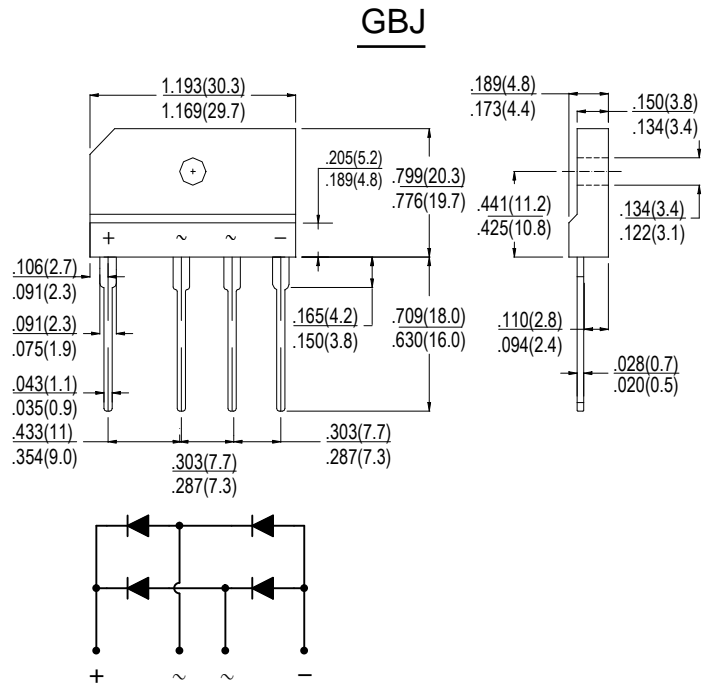
SINGLE PHASE 6.0 AMP GLASS PASSIVATED BRIDGE RECTIFIER

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: Molded plastic, GBJ
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS / Lead Free Version



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%.

TYPE NUMBER	SYMBOL	GBJ 6005	GBJ 601	GBJ 602	GBJ 604	GBJ 606	GBJ 608	GBJ 610	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V_{RWM}								
DC Blocking Voltage	V_{DC}								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@ $T_c=90^\circ C$	$I_F(AV)$	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	160							A
I^2t Rating for Fusing ($t < 8.3ms$)	I^2t	106.24							A ² s
Forward Voltage per element @ $I_F=3A$ @ $I_F=6A$	V_{FM}	1.0 1.1							V
Peak Reverse Current @ $T_J=25^\circ C$ At Rated DC Blocking Voltage @ $T_J=125^\circ C$	I_R	5.0 200							uA
Dielectric Strength	V_{ids}	2500							V
The proposed installation torque Max torque	T_{or}	5.0 8.0							Kgf.cm
Typical Junction Capacitance (Note 2)	C_J	35							pF
Between junction and ambient, Without heatsink	$R_{\theta JA}$	24							°C/W
Between junction and case, With heatsink	$R_{\theta JL}$	2.5							
Operating and Storage Temperature Range	T_J, T_{STG}	-55to+150							°C

Note: 1. Unit case mounted on aluminum plate heatsink
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C..



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Fig. 1 Output Current Derating Curve

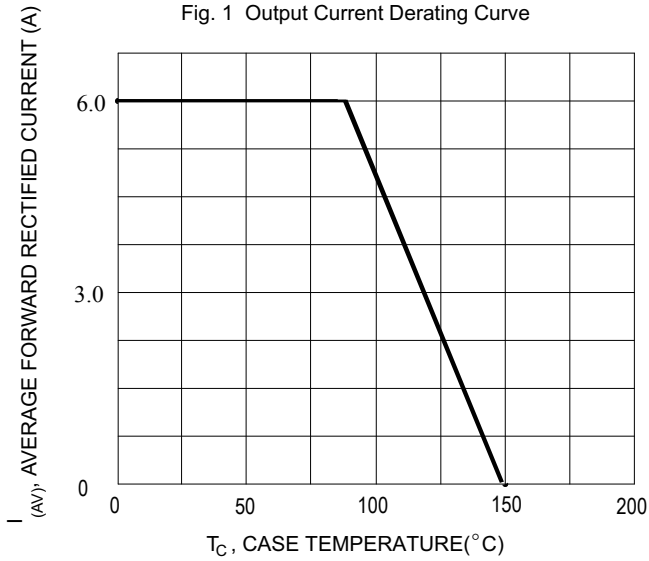


Fig. 2 Typical Forward Characteristics

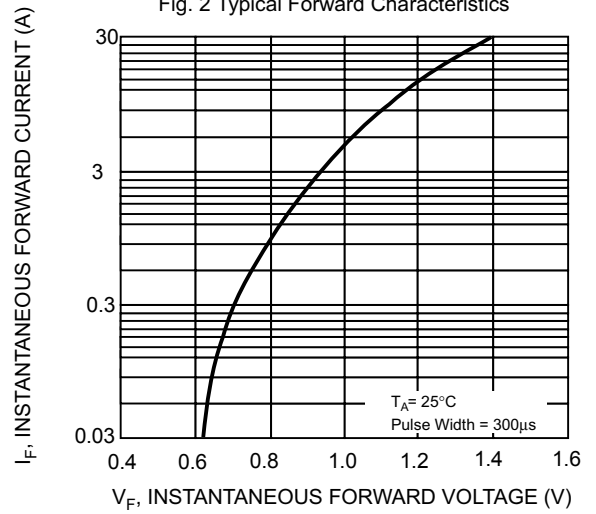


Fig. 3 Maximum Peak Forward Surge Current

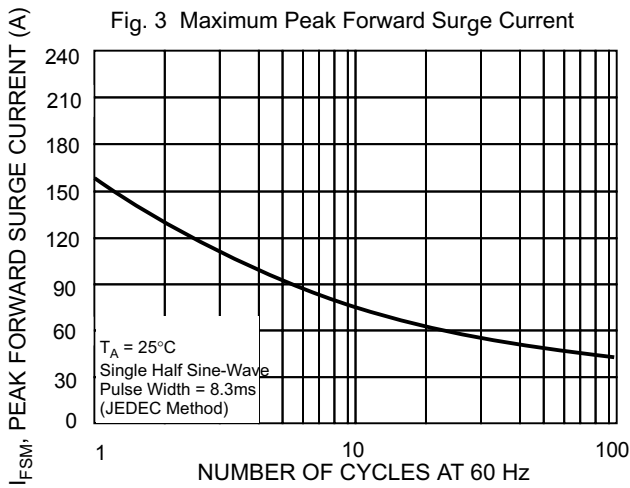


Fig. 4 Typical Junction Capacitance

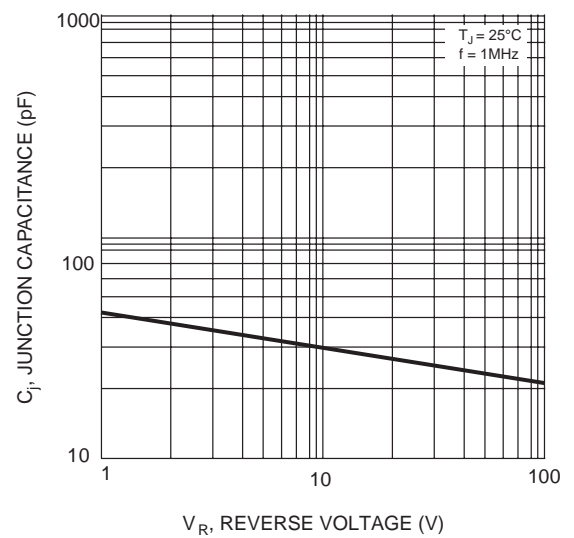
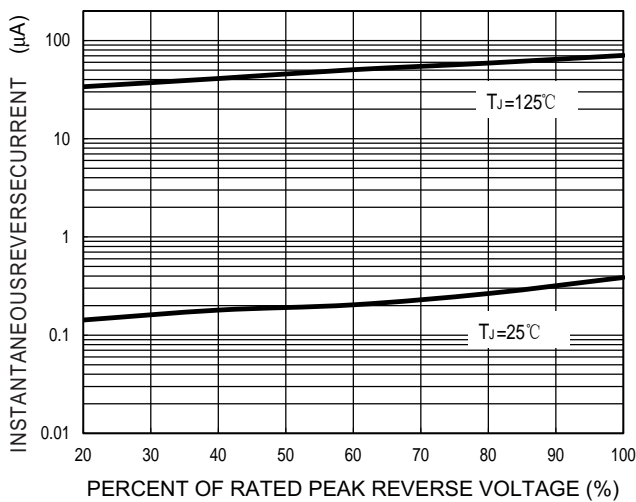


Fig. 5 Typical Reverse Characteristics





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