

# GBJ10005 THRU GBJ1010

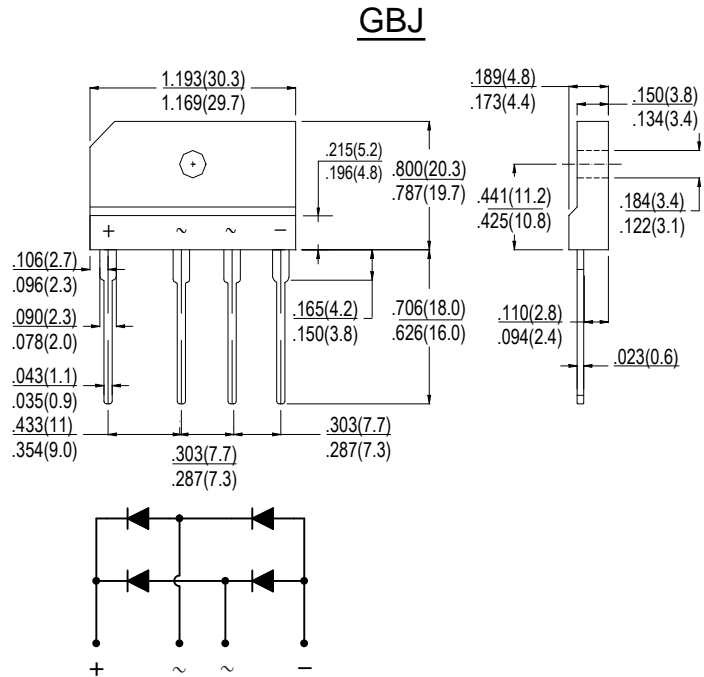
SINGLE PHASE 10.0AMP GLASS PASSIVATED BRIDGE RECTIFIER

## 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 10005	GBJ 1001	GBJ 1002	GBJ 1004	GBJ 1006	GBJ 1008	GBJ 1010	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)@ $T_c=90^\circ C$	$I_F(AV)$	10.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200							A
$I^2t$ Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	166							A <sup>2</sup> s
Forward Voltage per element @ $I_F=5A$ @ $I_F=10A$	$V_{FM}$	1.0 1.1							V
Peak Reverse Current @ $T_A=25^\circ C$ At Rated DC Blocking Voltage @ $T_A=125^\circ C$	$I_R$	5.0 500							uA
Typical Junction Capacitance per leg	$C_J$	55							pF
Between junction and ambient, Without heatsink	$R_{\theta JA}$	14							°C/W
Between junction and case, With heatsink	$R_{\theta JC}$	2.3							
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55to+150							°C

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

Fig. 1 Output Current Derating Curve

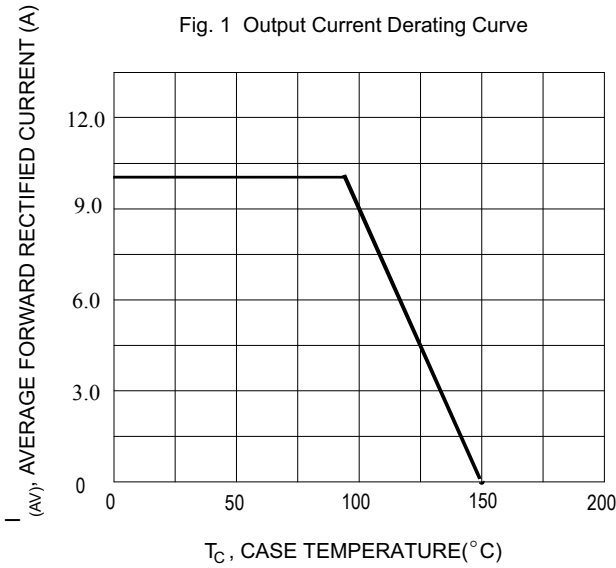


Fig. 2 Typical Forward Characteristics (per leg)

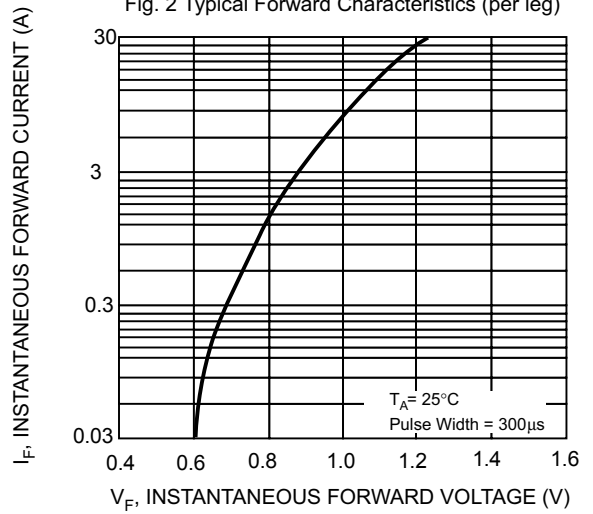


Fig. 3 Maximum Peak Forward Surge Current (per leg)

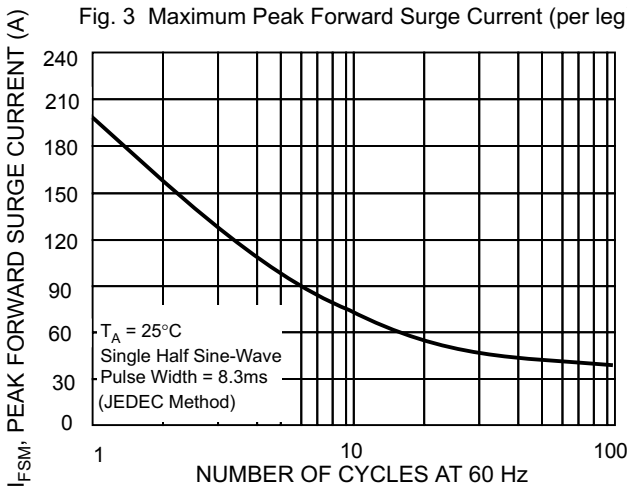


Fig. 4 Typical Junction Capacitance

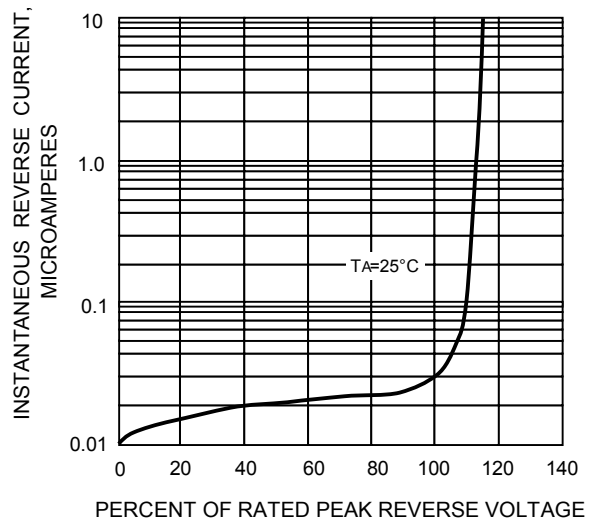
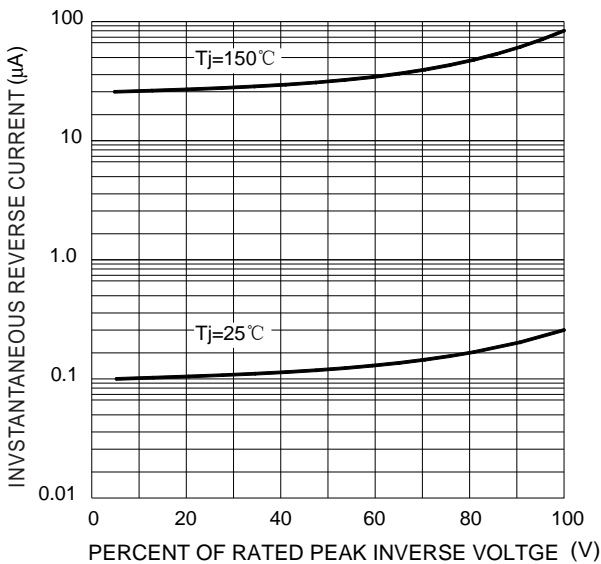


FIG.5 TYPICAL REVERSE CHARACTERISTICS



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