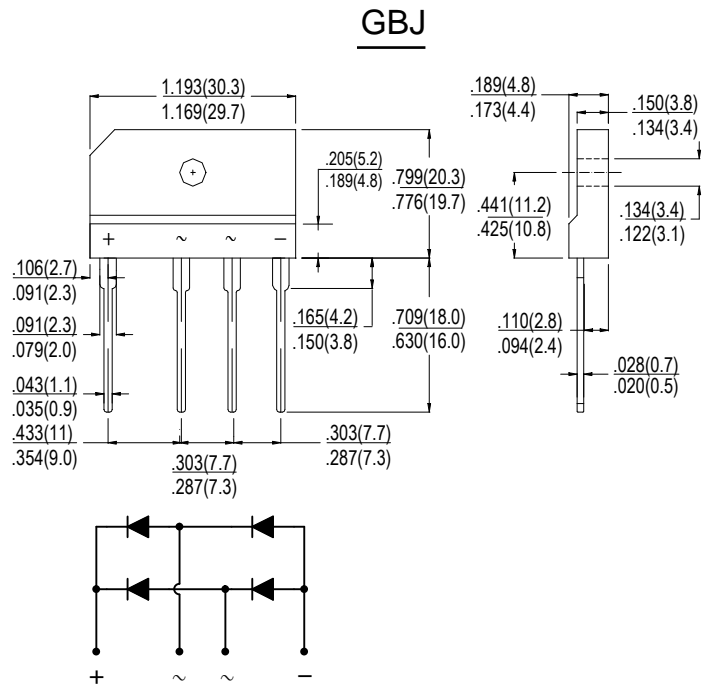


### Features

- 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



dimensions in inches and (millimeters)

### 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 25005	GBJ 2501	GBJ 2502	GBJ 2504	GBJ 2506	GBJ 2508	GBJ 2510	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)@ $T_c=90^\circ C$	$I_{F(AV)}$	25.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	350							A
$I^2t$ Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	508.375							A <sup>2</sup> s
Forward Voltage per element @ $I_F=12.5A$ @ $I_F=25A$	$V_{FM}$	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	Tor	5.0 8.0							Kgf.cm
Typical Junction Capacitance (Note 2)	$C_J$	110							pF
Between junction and ambient, Without heatsink	$R_{\theta JA}$	22							°C/W
Between junction and case, With heatsink	$R_{\theta JC}$	1.0							
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..

Fig. 1 Output Current Derating Curve

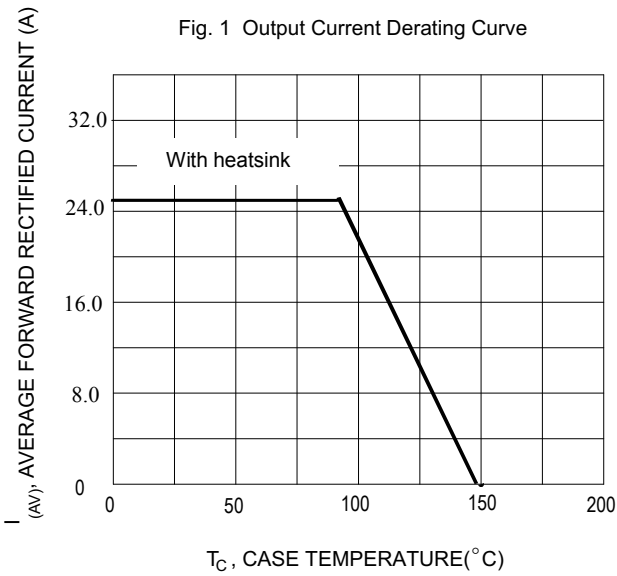


Fig. 2 Typical Forward Characteristics

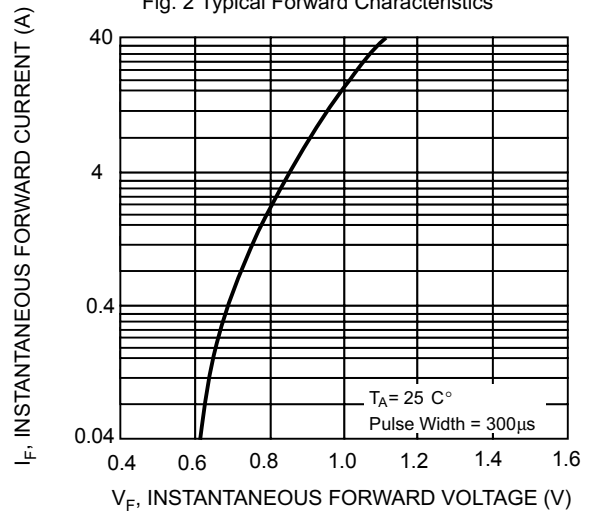


Fig. 3 Maximum Peak Forward Surge Current

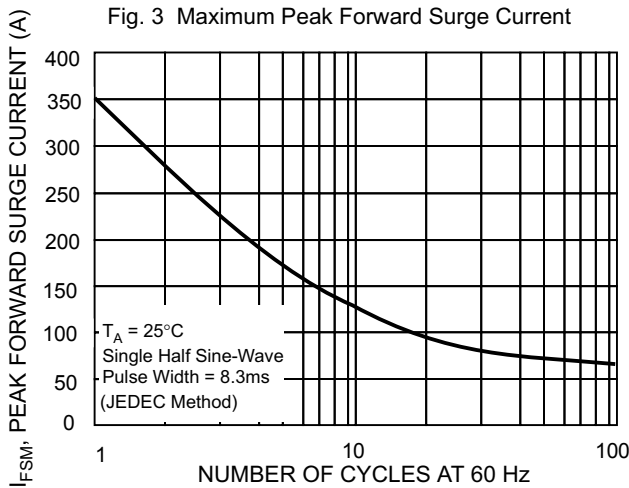


Fig. 4 Typical Junction Capacitance

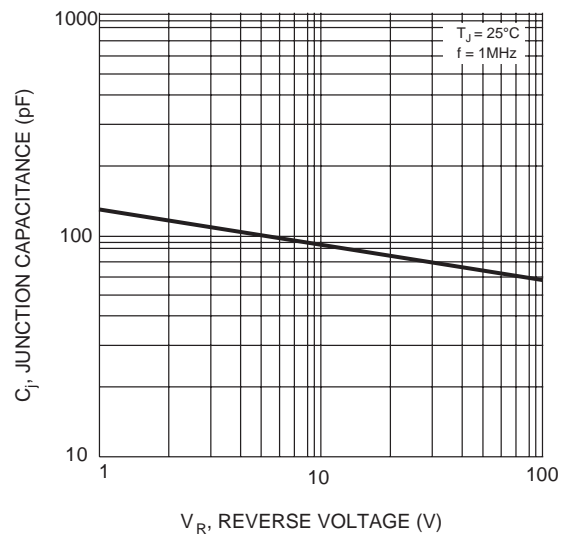
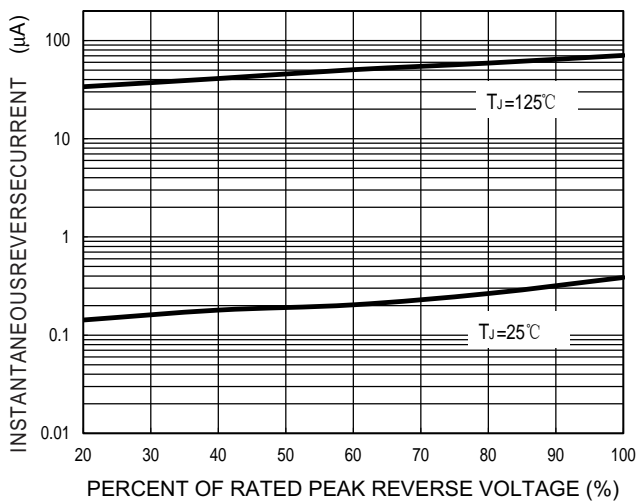


Fig. 5 Typical Reverse Characteristics



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