

### ■ Features

- Surge overload ratings to 350 amperes peak.
- Recommended for non-automatic applications.
- Ideal for & save space on printed circuit board.
- Applicable for automatic insertion.
- Reliable low cost construction utilizing molded plastic technology results in inexpensive product.
- Glass passivated chip junctions.
- Suffix "G" indicates Halogen-free part, ex. GBJ25005G.
- Lead-free parts meet RoHS requirements.

### ■ Mechanical data

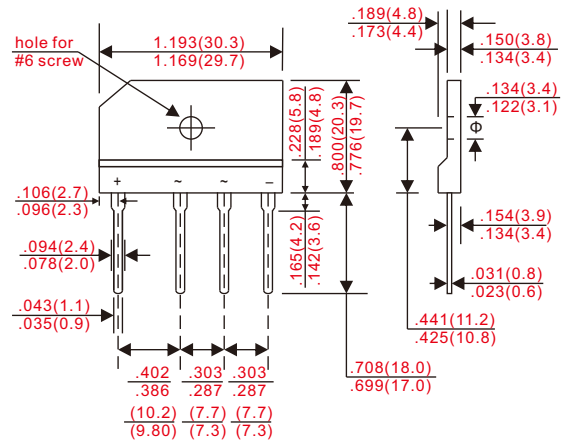
- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, GBJ
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Mounting Position : Any
- Weight : Approximated 7.00 gram

### ■ 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%.

### ■ Outline

GBJ



Dimensions in inches and (millimeters)

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	with heatsink $T_c = 98^\circ\text{C}$	$I_o$			25	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$			350	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25^\circ\text{C}$	$I_R$			10	uA
	$V_R = V_{RRM}$ $T_A = 125^\circ\text{C}$				500	
Current squared time	$t < 8.3\text{ms}$ , $T_j = 25^\circ\text{C}$	$I^2t$			508	$\text{A}^2\text{S}$
Thermal resistance	junction to ambient	$R_{\theta JA}$			22	$^\circ\text{C}/\text{W}$
Storage temperature		$T_{STG}$	-55		+150	$^\circ\text{C}$

Symbol	Marking code	Max. repetitive peak reverse voltage $V_{RRM}$ (V)	Max. RMS voltage $V_{RMS}$ (V)	Max. DC blocking voltage $V_R$ (V)	Max. forward voltage @ 12.5A, $T_A = 25^\circ\text{C}$ $V_F$ (V)	Operating Junction temperature $T_j$ ( $^\circ\text{C}$ )
GBJ25005	GBJ25005	50	35	50	1.1	-55 ~ +150
GBJ2501	GBJ2501	100	70	100		
GBJ2502	GBJ2502	200	140	200		
GBJ2504	GBJ2504	400	280	400		
GBJ2506	GBJ2506	600	420	600		
GBJ2508	GBJ2508	800	560	800		
GBJ2510	GBJ2510	1000	700	1000		

■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

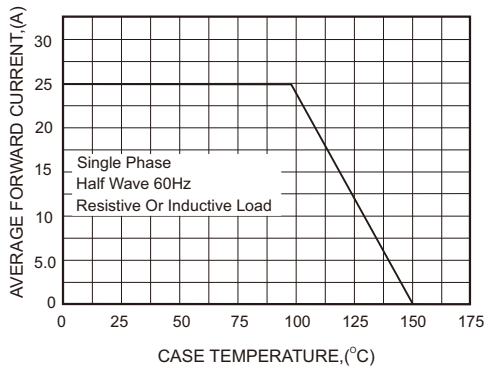


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

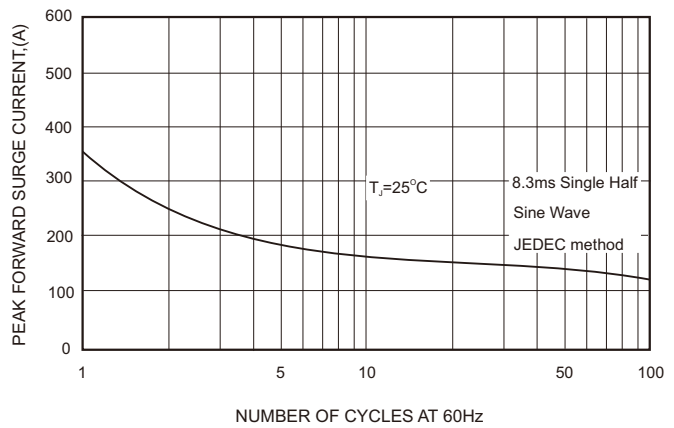


Fig. 3 - Typical Instantaneous Forward Characteristics (Per Leg)

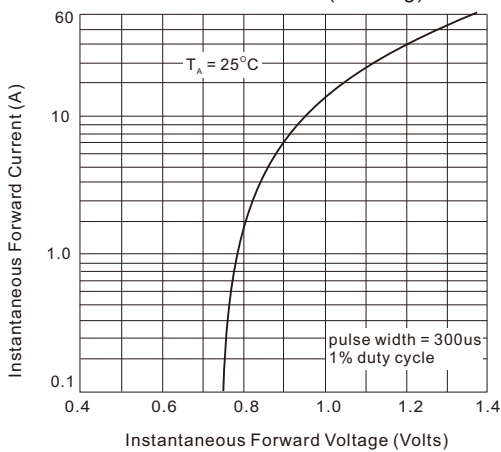
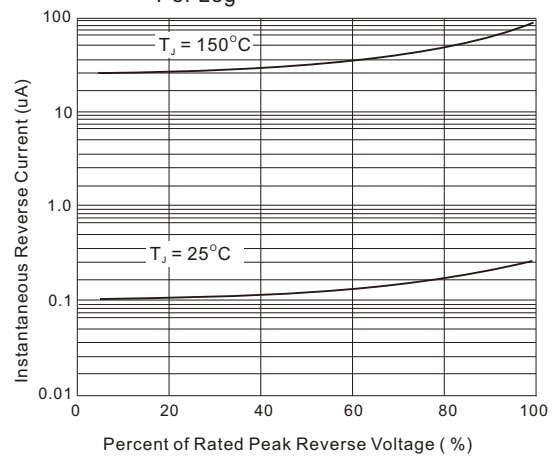


Fig. 4 - Typical Reverse Characteristics Per Leg



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