GBJ10005 THRU GBJ1010

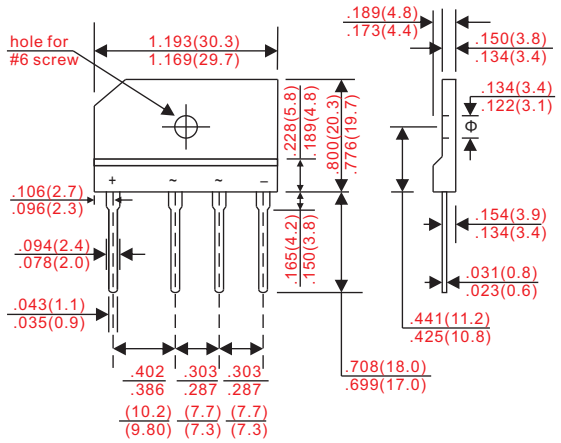
10A Miniature Glass Passivated Single-Phase Bridge Rectifiers

■ Features

- Surge overload ratings to 220 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.GBJ10005G.
- Lead-free parts meet RoHS requirments.

■ Outline

GBJ



Dimensions in inches and (millimeters)

■ 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%.

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	with heatsink T_C = 80°C	I_O			10	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			170	A
Reverse current	V_R = V_{RRM} T_A = 25°C	I_R			10	uA
	V_R = V_{RRM} T_A = 125°C				500	
Current squared time	t < 8.3ms, T_J = 25°C	I^2t			120	A^2S
Thermal resistance	junction to ambient	$R_{\theta JA}$			25	°C/W
Storage temperature		T_{STG}	-55		+150	°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 @5A, T_A = 25°C V_F (V)	Operating temperature T_J (°C)
GBJ10005	GBJ10005	50	35	50	1.1	-55 ~ +150
GBJ1001	GBJ1001	100	70	100		
GBJ1002	GBJ1002	200	140	200		
GBJ1004	GBJ1004	400	280	400		
GBJ1006	GBJ1006	600	420	600		
GBJ1008	GBJ1008	800	560	800		
GBJ1010	GBJ1010	1000	700	1000		

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■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

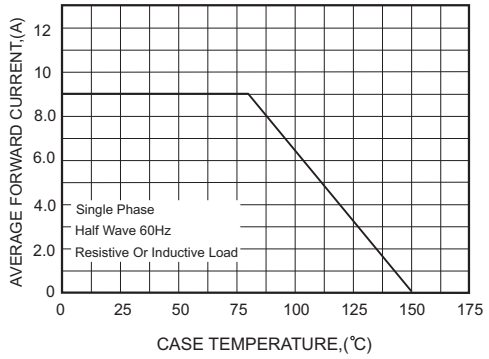


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

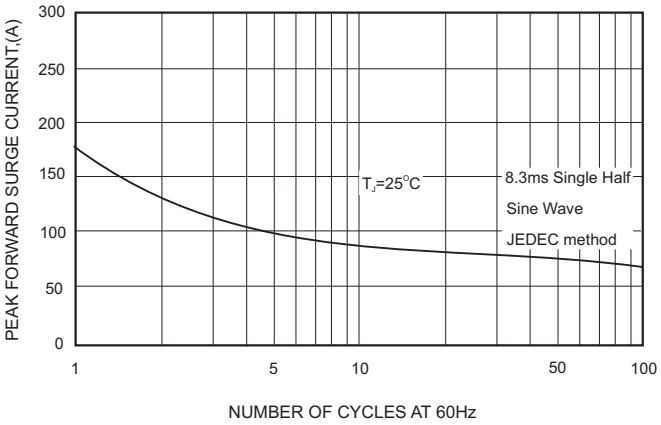


Fig. 3 - Typical Instantaneour Forward Characteristics (Per Leg)

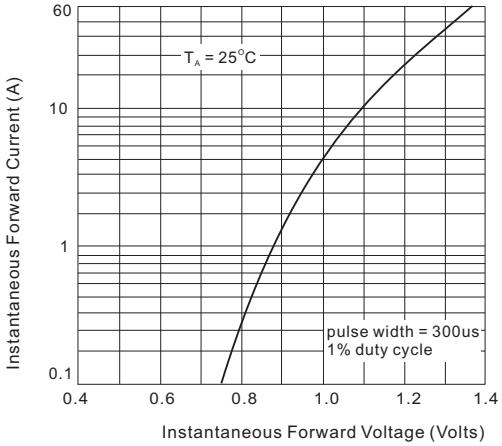
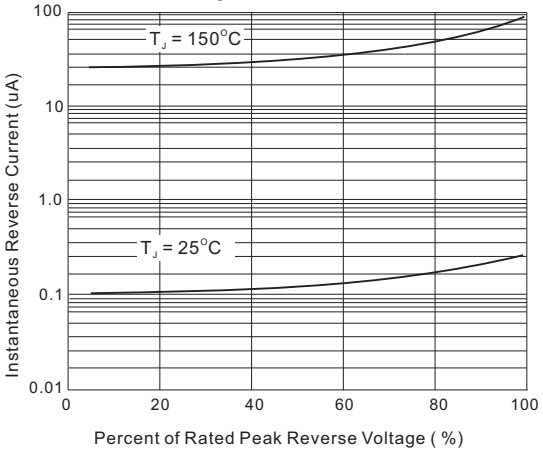


Fig. 4 - Typical Reverse Characteristics Per Leg



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