

10.0A Glass Passivated Single-Phase Bridge Rectifiers-50-1000V

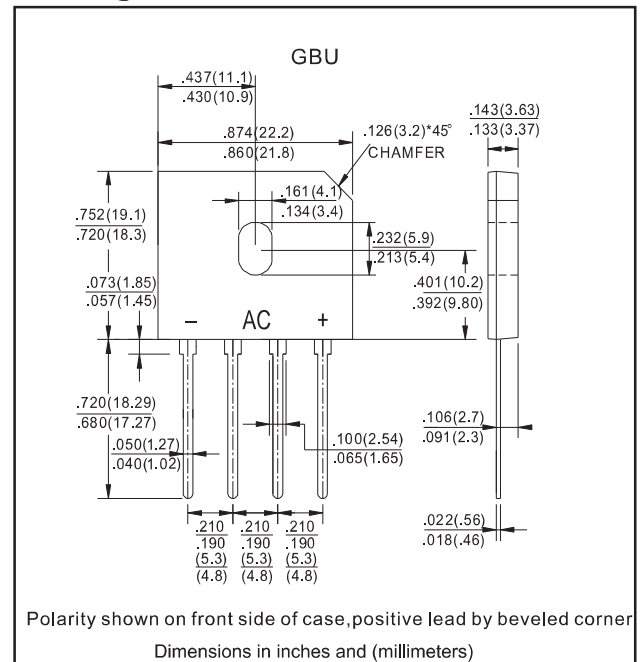
Features

- Surge overload ratings to 200 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.
- Lead-free parts meet RoHS requirements.
- Suffix "-H" indicates Halogen free parts, ex. GBU1010-H.

Mechanical data

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

Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	at $T_C = 85^{\circ}\text{C}$ Note 1	I_O			10.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			210	A
Reverse current	$V_R = V_{RRM} \quad T_J = 25^{\circ}\text{C}$	I_R			5.0	uA
	$V_R = V_{RRM} \quad T_J = 125^{\circ}\text{C}$				500	
I^2t Rating for fusing	$t < 8.3 \text{ ms}$	I^2t			183	A^2s
Typical Junction capacitance per element	Measured at 1.0MHz and applied reverse voltage of 4.0 VDC	C_J		60		pF
Typical thermal resistance	Junction to case heatsink	$R_{\theta JC}$		4.0		$^{\circ}\text{C/W}$
Storage temperature		T_{STG}	-65		+175	$^{\circ}\text{C}$

Note 1. Device mounted on 75mm*75mm*1.6mm Cu plate heatsink.

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature $T_J, (^{\circ}\text{C})$
GBU10005	50	35	50	1.0	-55 to +150
GBU1001	100	70	100		
GBU1002	200	140	200		
GBU1004	400	280	400		
GBU1006	600	420	600		
GBU1008	800	560	800		
GBU1010	1000	700	1000		

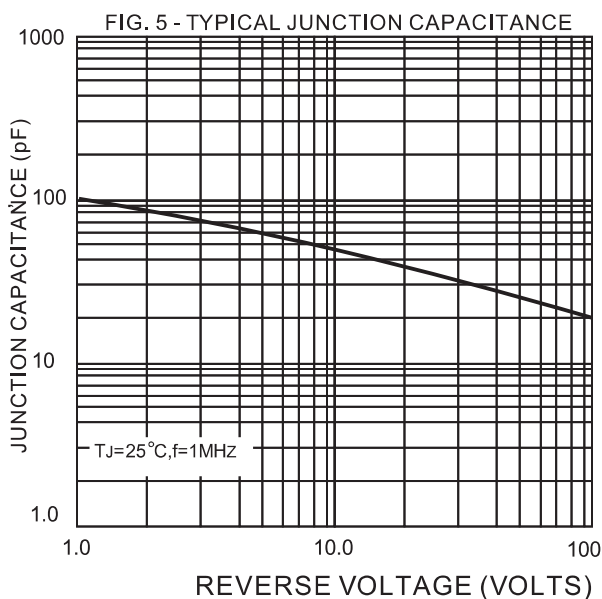
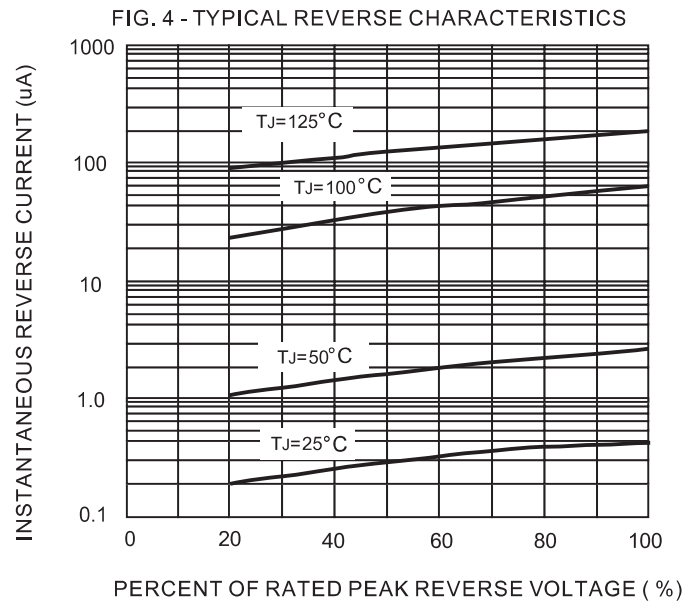
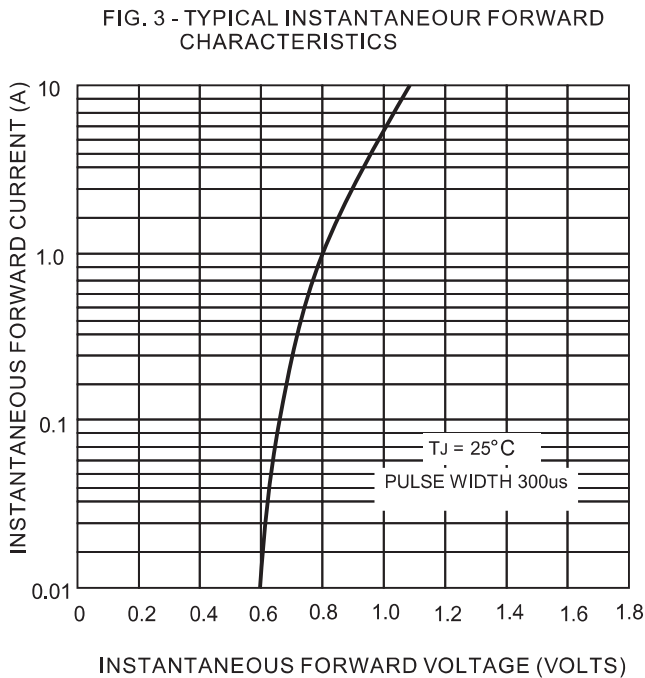
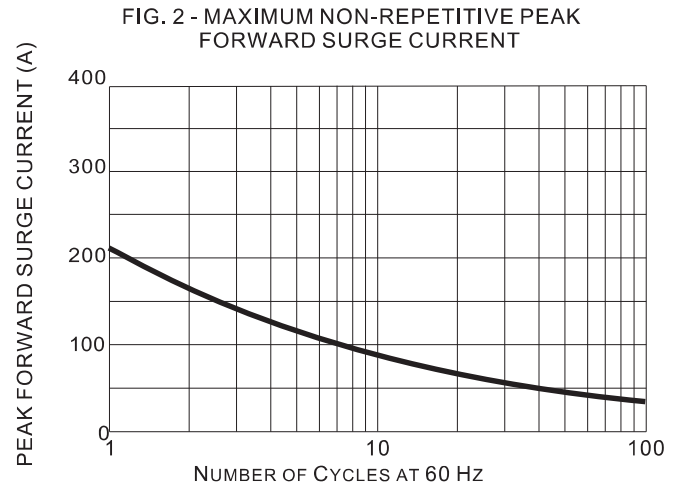
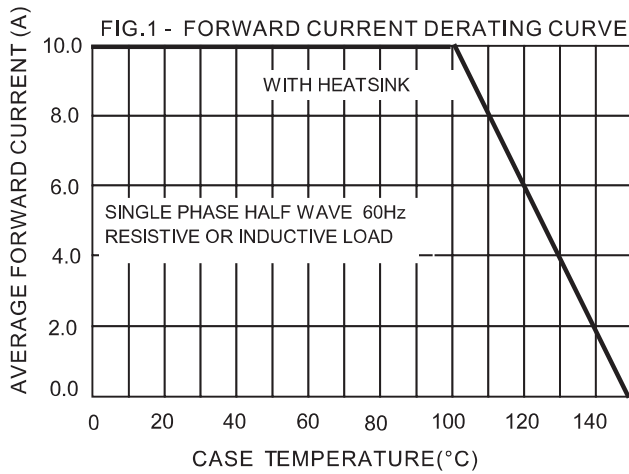
*1 Repetitive peak reverse voltage

*2 RMS voltage

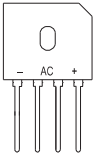
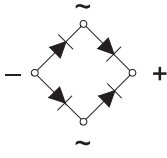
*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F=5.0\text{A}$

Rating and characteristic curves (GBU10005 THRU GBU1010)



Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code
GBU10005	GBU10005
GBU1001	GBU1001
GBU1002	GBU1002
GBU1004	GBU1004
GBU1006	GBU1006
GBU1008	GBU1008
GBU1010	GBU1010