

15.0A Glass Passivated Single-Phase Bridge Rectifiers-50-1000V

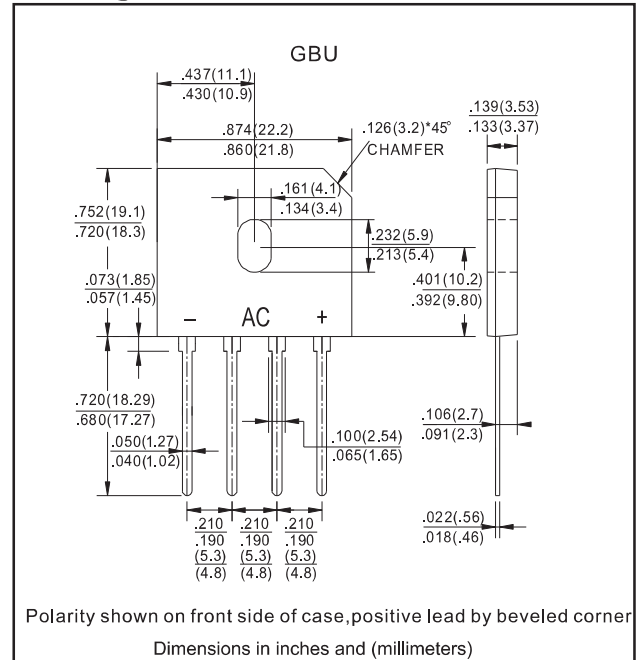
Features

- 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. GBU1510-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			15.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC method)	I_{FSM}			240	A
Reverse current	$V_R = V_{RRM}$ $T_J = 25^\circ\text{C}$	I_R			5.0	uA
	$V_R = V_{RRM}$ $T_J = 125^\circ\text{C}$				500	
I^2t Rating for fusing	$t < 8.3$ ms	I^2t			239	A^2s
Typical junction capacitance per element	Measured at 1.0MHz and applied reverse voltage of 4.0 VDC	C_J		70		pF
Typical thermal resistance	Junction to case	$R_{\theta JC}$		2.2		$^\circ\text{C}/\text{W}$
Storage temperature		T_{STG}	-65		+175	$^\circ\text{C}$

Note 1. Device mounted on 100mm*100mm*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 , ($^\circ\text{C}$)
GBU15005	50	35	50	1.0	-55 to +150
GBU1501	100	70	100		
GBU1502	200	140	200		
GBU1504	400	280	400		
GBU1506	600	420	600		
GBU1508	800	560	800		
GBU1510	1000	700	1000		

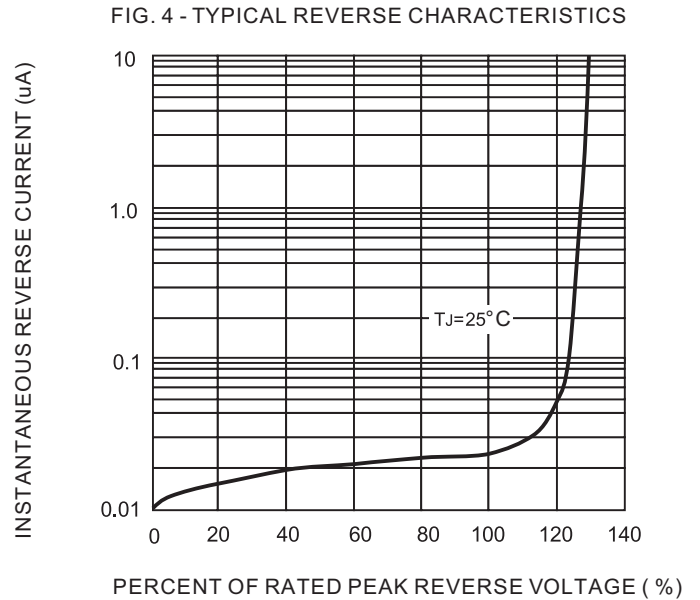
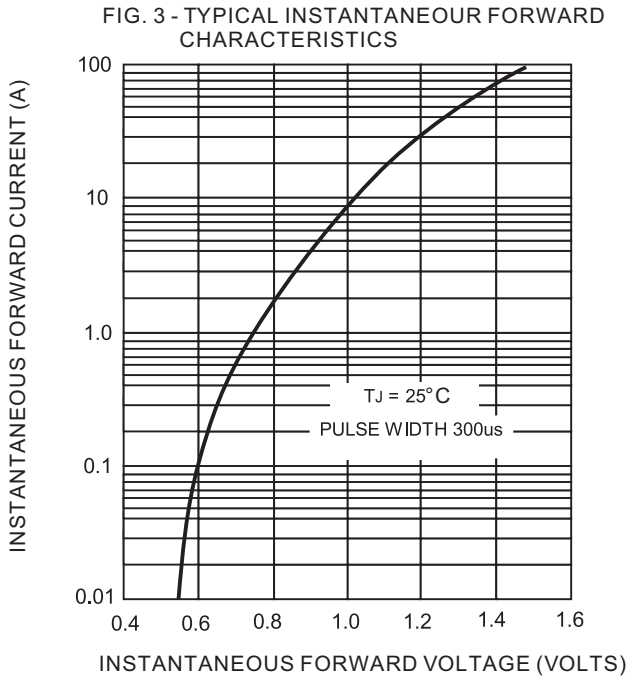
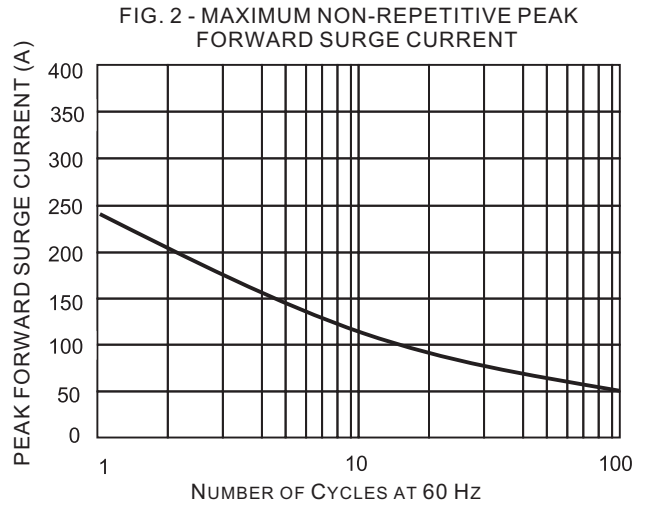
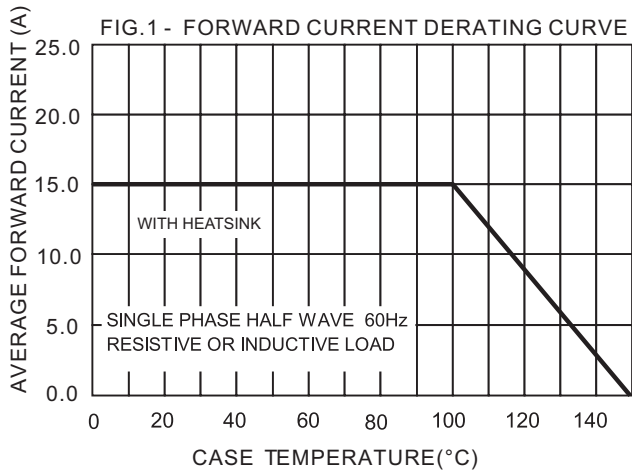
*1 Repetitive peak reverse voltage

*2 RMS voltage

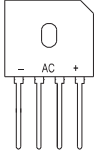
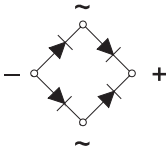
*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F=7.5\text{A}$

Rating and characteristic curves (GBU15005 THRU GBU1510)



Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code
GBU15005	GBU15005
GBU1501	GBU1501
GBU1502	GBU1502
GBU1504	GBU1504
GBU1506	GBU1506
GBU1508	GBU1508
GBU1510	GBU1510