

GBU6005 THRU GBU610

6.0A Glass Passivated Single-Phase Bridge Rectifiers-50-1000V

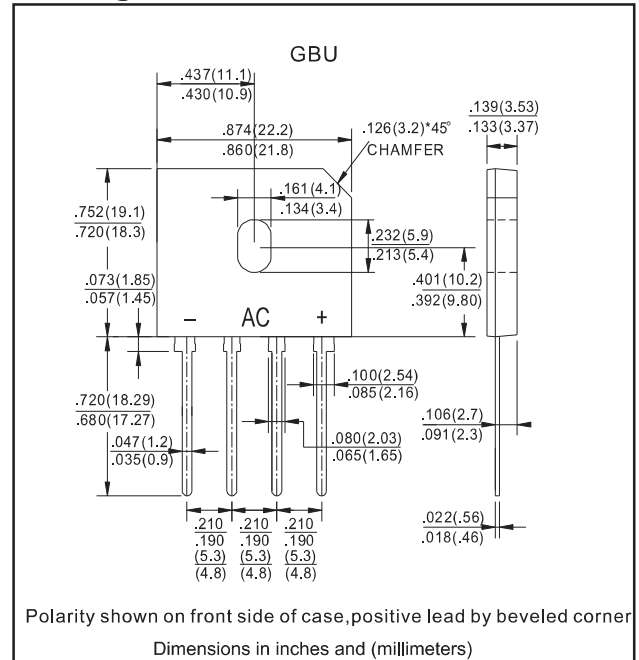
Features

- Surge overload ratings to 175 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.
- UL recognized file # E321971
- Suffix "-H" indicates Halogen free parts.

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
- Weight : Approximated 4.00 gram

Package outline



Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	at T _C =100°C Note 1	I _O			6.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I _{FSM}			175	A
Reverse current	V _R = V _{RRM} T _J = 25°C	I _R			10.0	uA
	V _R = V _{RRM} T _J = 125°C				500	
I ² t Rating for fusing	t < 8.3 ms	I ² t			127	A ² s
Typical Junction capacitance per element	Measured at 1.0MHz and applied reverse voltage of 4.0 VDC	C _J		50		pF
Typical thermal resistance	Junction to case	R _{θJC}		2.2		°C/W
Storage temperature		T _{STG}	-65		+175	°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 (°C)
GBU6005	50	35	50	1.10	-55 to +150
GBU601	100	70	100		
GBU602	200	140	200		
GBU604	400	280	400		
GBU606	600	420	600		
GBU608	800	560	800		
GBU610	1000	700	1000		

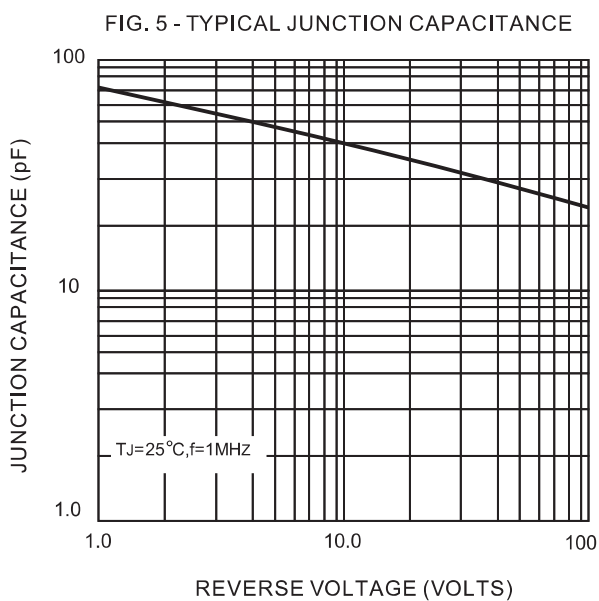
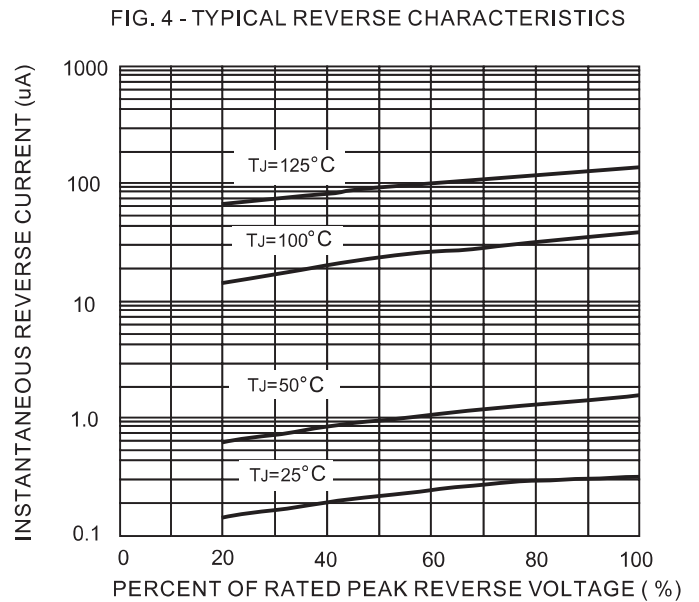
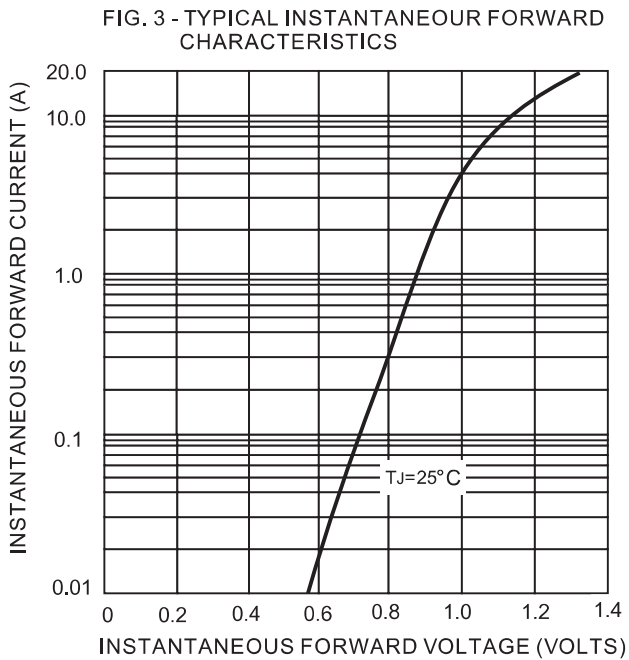
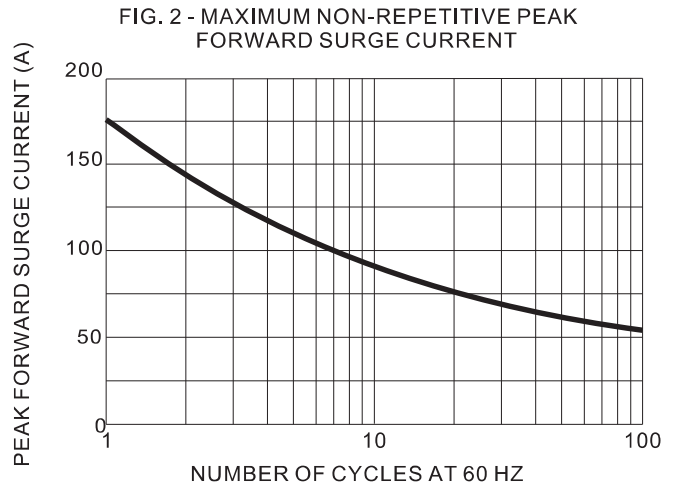
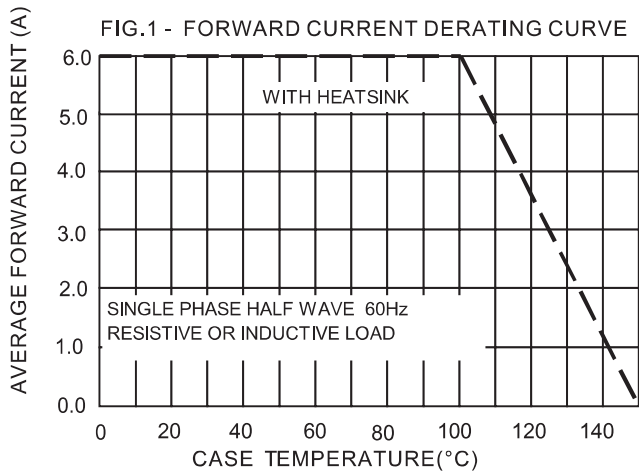
*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

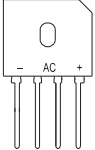
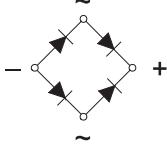
*4 Maximum forward voltage@I_F=3.0A

Rating and characteristic curves (GBU6005 THRU GBU610)



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Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code
GBU6005	GBU6005
GBU601	GBU601
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