

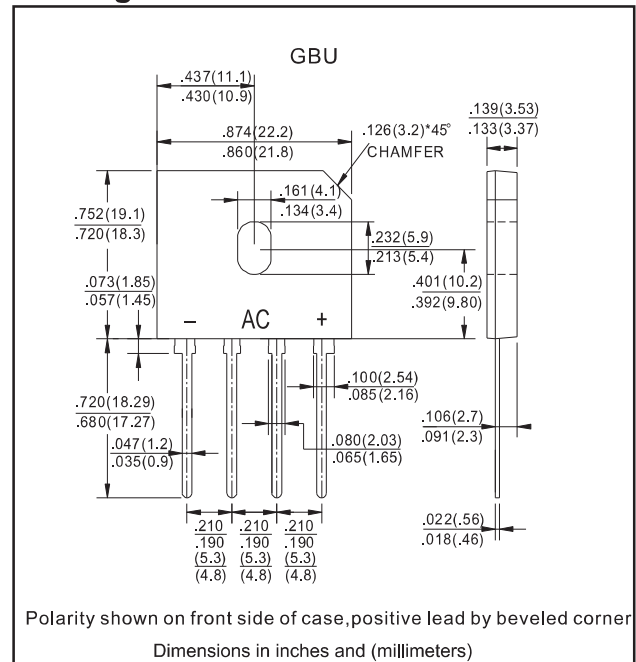
### Features

- 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.
- UL recognized file # E321971
- 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	$V_R = V_{RRM}$ $T_J = 25^\circ\text{C}$	$I_R$			5.0	uA
	$V_R = V_{RRM}$ $T_J = 125^\circ\text{C}$				500	
$I^2t$ Rating for fusing	$t < 8.3$ ms	$I^2t$			183	$\text{A}^2\text{s}$
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		$^\circ\text{C}/\text{W}$
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	1.10	-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		

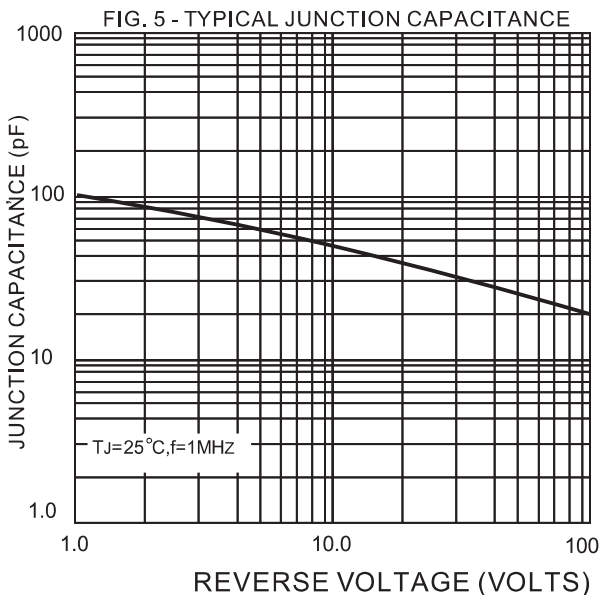
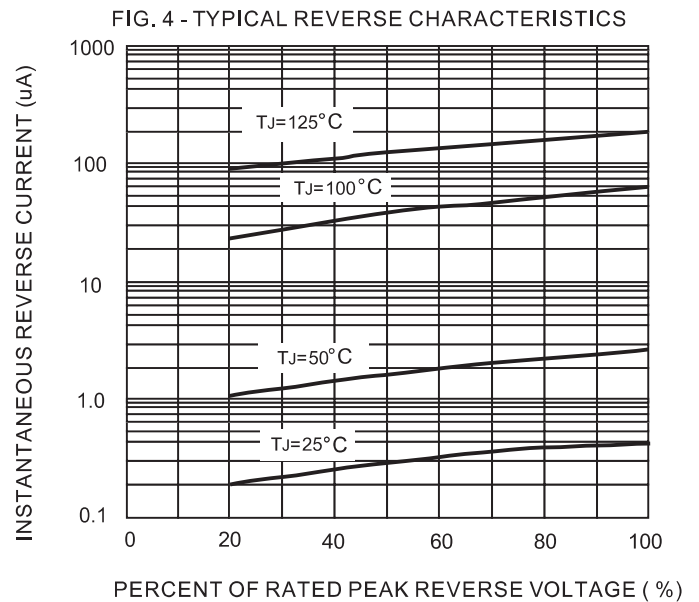
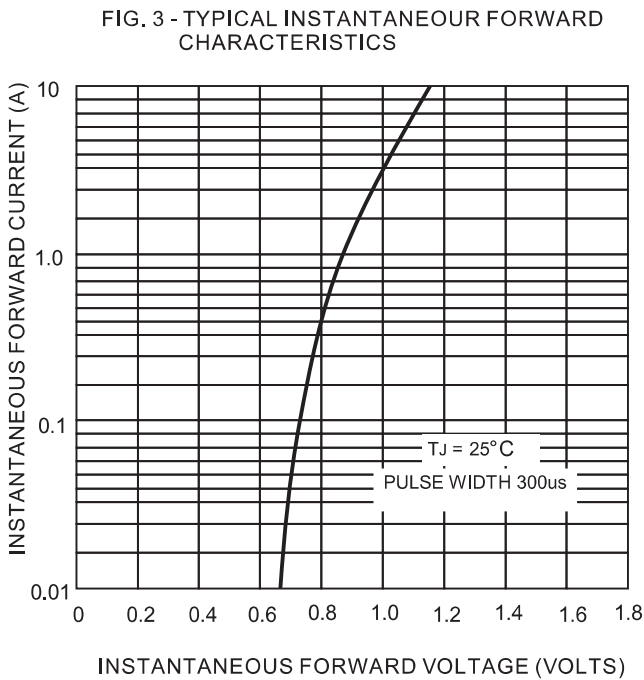
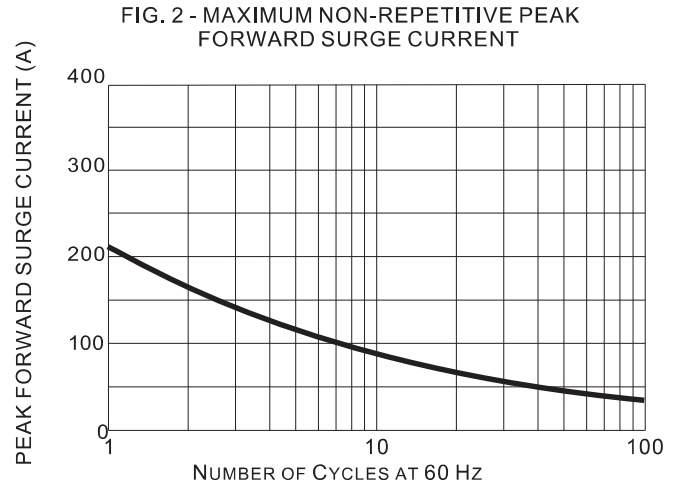
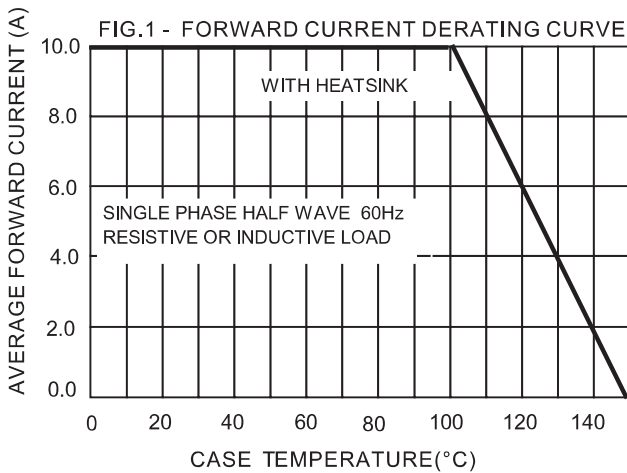
\*1 Repetitive peak reverse voltage

\*2 RMS voltage

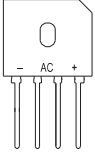
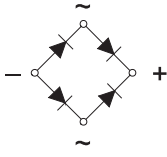
\*3 Continuous reverse voltage

\*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