

# GBU4005 THRU GBU410

## 4.0A Glass Passivated Single-Phase Bridge Rectifiers-50-1000V

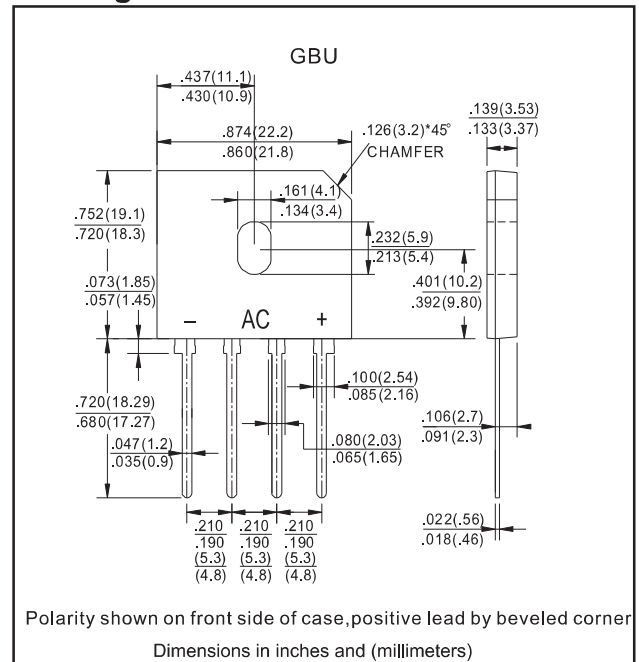
### Features

- Surge overload ratings to 150 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<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	at T <sub>c</sub> =100°C Note 1	I <sub>O</sub>			4.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I <sub>FSM</sub>			150	A
Reverse current	V <sub>R</sub> = V <sub>RRM</sub> T <sub>J</sub> = 25°C	I <sub>R</sub>			10.0	uA
	V <sub>R</sub> = V <sub>RRM</sub> T <sub>J</sub> = 125°C				500	
I <sup>2</sup> t Rating for fusing	t < 8.3 ms	I <sup>2</sup> t			93	A <sup>2</sup> s
Typical Junction capacitance per element	Measured at 1.0MHz and applied reverse voltage of 4.0 VDC	C <sub>J</sub>		45		pF
Typical thermal resistance	Junction to case	R <sub>θJC</sub>		2.2		°C/W
Storage temperature		T <sub>STG</sub>	-65		+175	°C

Note 1. Device mounted on 50mm\*50mm\*1.6mm Cu plate heatsink.

SYMBOLS	V <sub>RRM</sub> *1 (V)	V <sub>RMS</sub> *2 (V)	V <sub>R</sub> *3 (V)	V <sub>F</sub> *4 (V)	Operating temperature T <sub>J</sub> , (°C)
GBU4005	50	35	50	1.10	-55 to +150
GBU401	100	70	100		
GBU402	200	140	200		
GBU404	400	280	400		
GBU406	600	420	600		
GBU408	800	560	800		
GBU410	1000	700	1000		

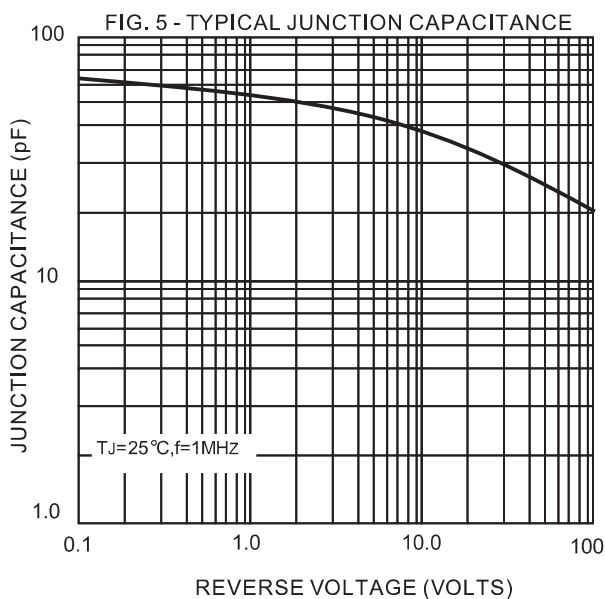
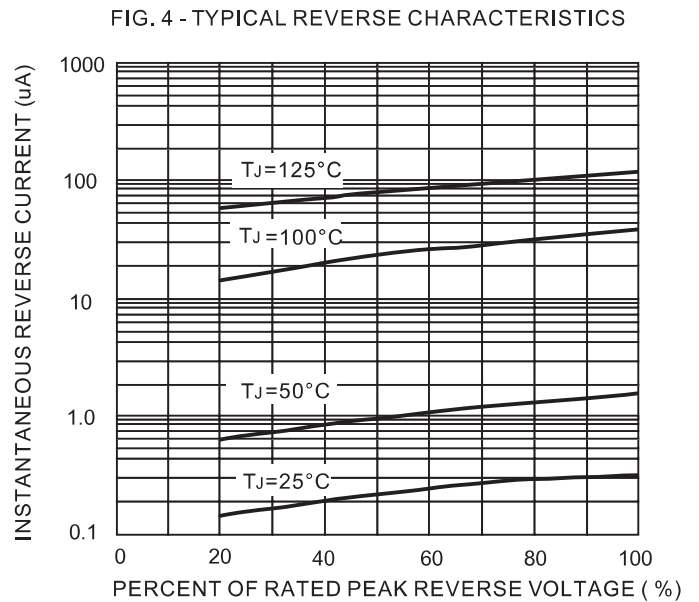
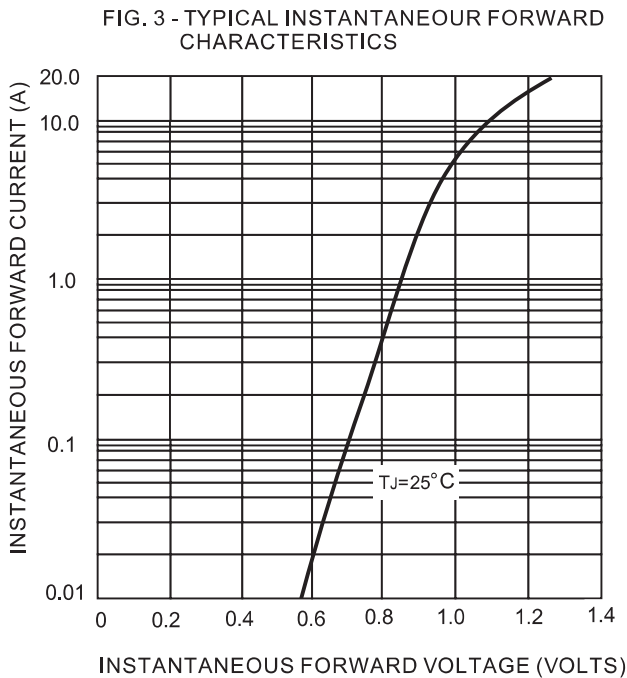
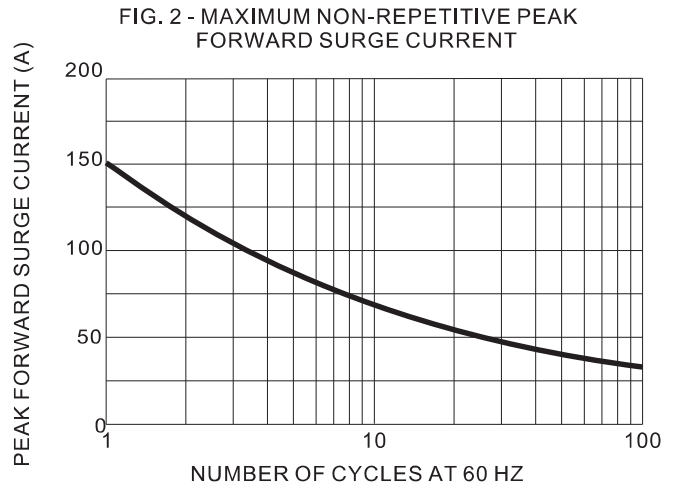
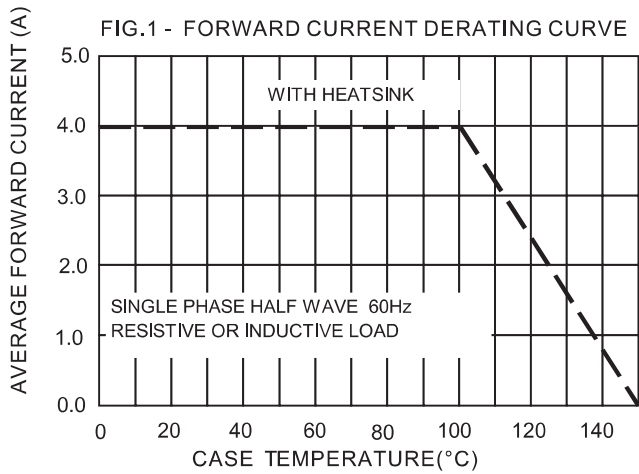
\*1 Repetitive peak reverse voltage

\*2 RMS voltage

\*3 Continuous reverse voltage

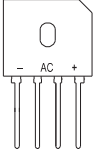
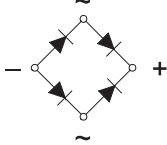
\*4 Maximum forward voltage@I<sub>F</sub>=2.0A

## Rating and characteristic curves (GBU4005 THRU GBU410)



# GBU4005 THRU GBU410

## Pinning information

Simplified outline	Symbol
	

## Marking

Type number	Marking code
GBU4005	GBU4005
GBU401	GBU401
GBU402	GBU402
GBU404	GBU404
GBU406	GBU406
GBU408	GBU408
GBU410	GBU410