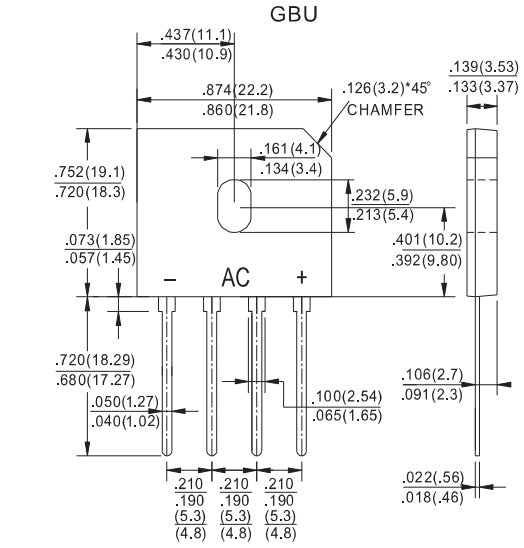
GBU4005 THRU GBU410

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 requirments.
- Suffix "-H" indicates Halogen free parts.

Package outline



Polarity shown on front side of case,positive lead by beveled corner

Dimensions in inches and (millimeters)

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

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			4.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			150	A
Reverse current	V_R = V_{RRM} T_J = 25°C	I_R			5.0	uA
	V_R = V_{RRM} T_J = 125°C				500	
I^2t Rating for fusing	t < 8.3 ms	I^2t			93	A^2s
Typical Junction capacitance per element	Measured at 1.0MHz and applied reverse voltage of 4.0 VDC	C_J		45		pF
Typical thermal resistance	Junction to case	$R_{\theta JC}$		2.2		°C/W
Storage temperature		T_{STG}	-65		+175	°C

Note 1. Device mounted on 50mm*50mm*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)
GBU4005	50	35	50	1.0	-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_F=2.0A

http://www.anbonsemi.com
TEL:+86-755-23776891
FAX:+86-755-81482182

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Rating and characteristic curves (GBU4005 THRU GBU410)

FIG.1 - FORWARD CURRENT DERATING CURVE

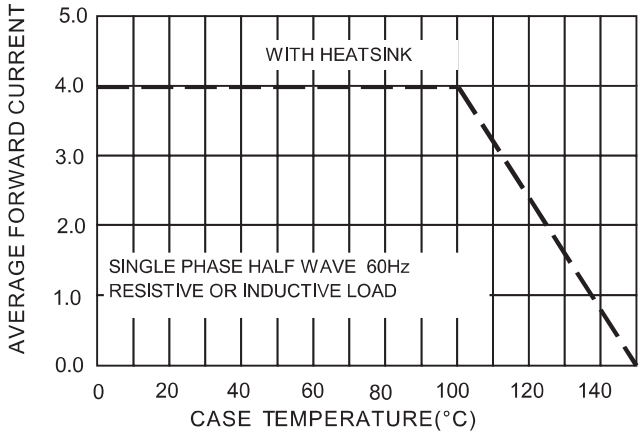


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

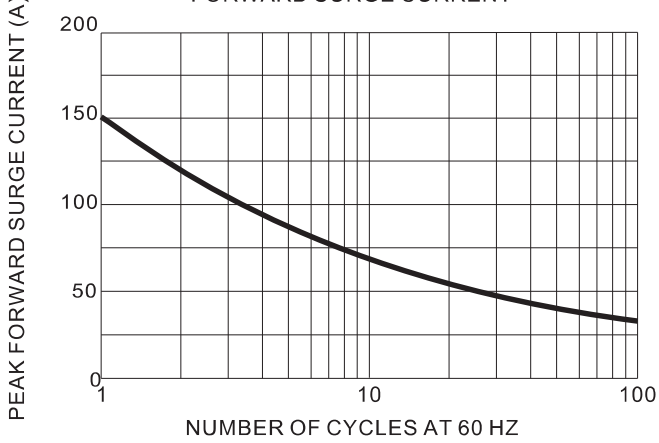


FIG. 3 - TYPICAL INSTANTANEOUR FORWARD CHARACTERISTICS

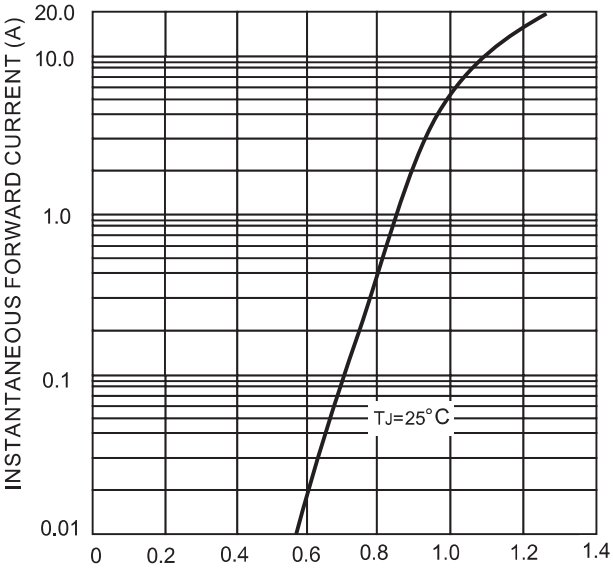


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

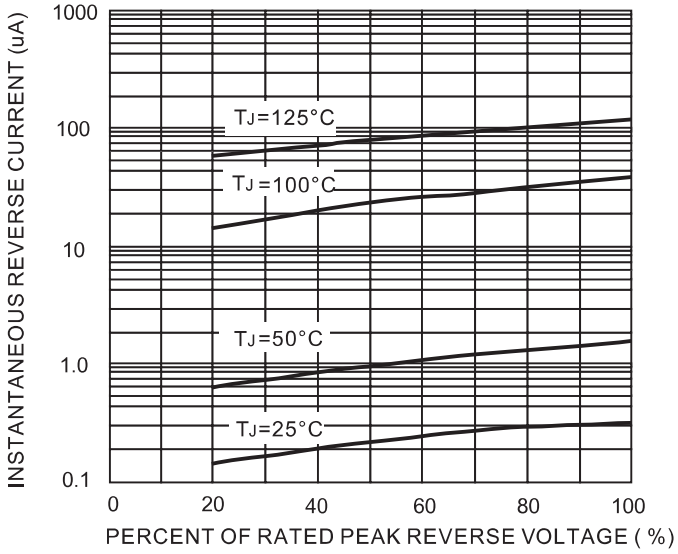
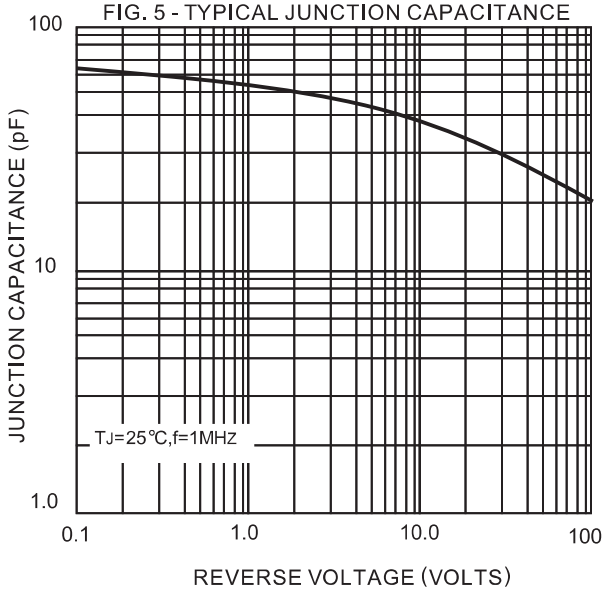


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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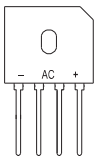
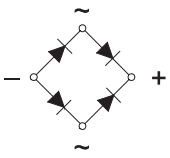
Pinning information

Simplified outline	Symbol
	

Marking

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