

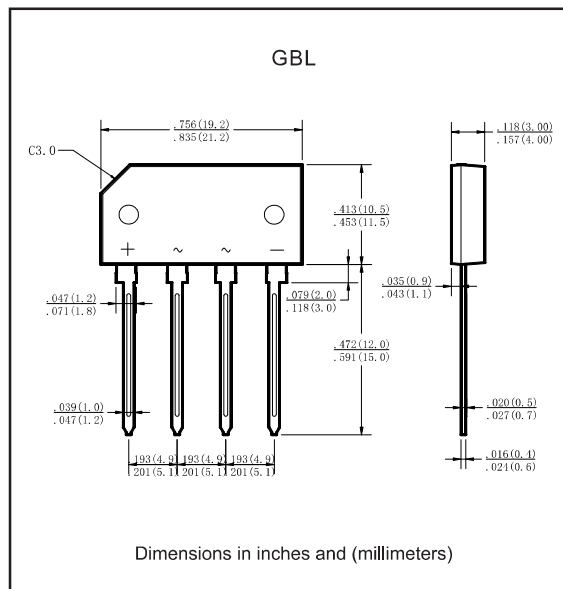
Features

- 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 part, ex. GBL410-H.

Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, GBL
- 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	See Fig.1	$I_{F(AV)}$			4.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			125	A
Reverse current	$V_R = V_{RRM} \quad T_J = 25^{\circ}\text{C}$	I_R			5.0	μA
	$V_R = V_{RRM} \quad T_J = 125^{\circ}\text{C}$				1000	
Rating for fusing	$t < 8.3 \text{ ms}$	I^2t			65	A^2s
Typical Thermal Resistance	Typical Thermal Resistance to Ambient	$R_{\theta JA}$		28		$^{\circ}\text{C/W}$
	Typical Thermal Resistance to case	$R_{\theta JC}$		4.2		
	Typical Thermal Resistance to lead	$R_{\theta JL}$		4		
Storage temperature		T_{STG}	-65		+175	$^{\circ}\text{C}$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J ($^{\circ}\text{C}$)
GBL4005	50	35	50	1.0	-55 to +150
GBL401	100	70	100		
GBL402	200	140	200		
GBL404	400	280	400		
GBL406	600	420	600		
GBL408	800	560	800		
GBL410	1000	700	1000		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage per bridge element@ $I_F=2.0\text{A}$

Rating and characteristic curves (GBL4005 THRU GBL410)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

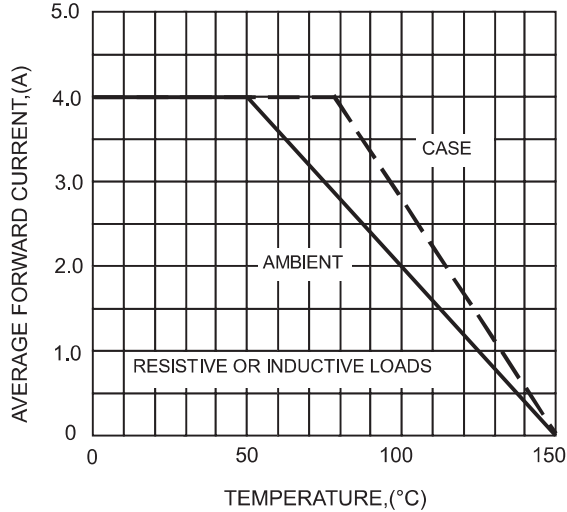


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

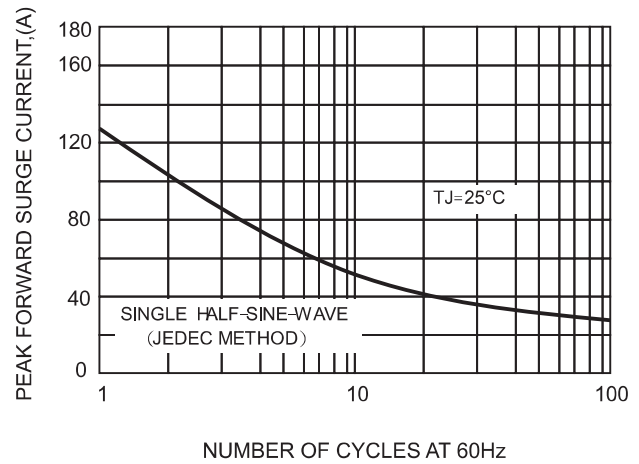


FIG.3-TYPICAL FORWARD CHARACTERISTICS

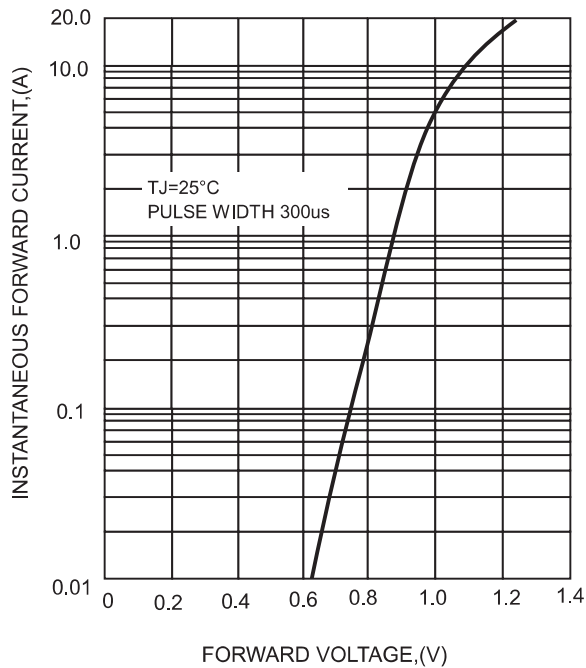
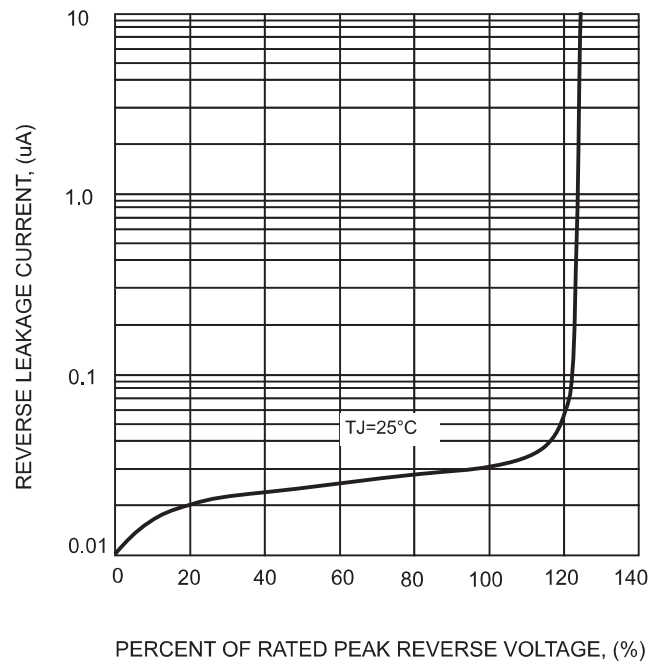
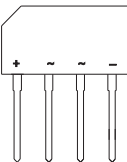
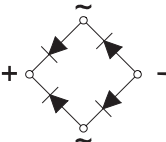


FIG.4-TYPICAL REVERSE CHARACTERISTICS



Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code
GBL4005	GBL4005
GBL401	GBL401
GBL402	GBL402
GBL404	GBL404
GBL406	GBL406
GBL408	GBL408
GBL410	GBL410