

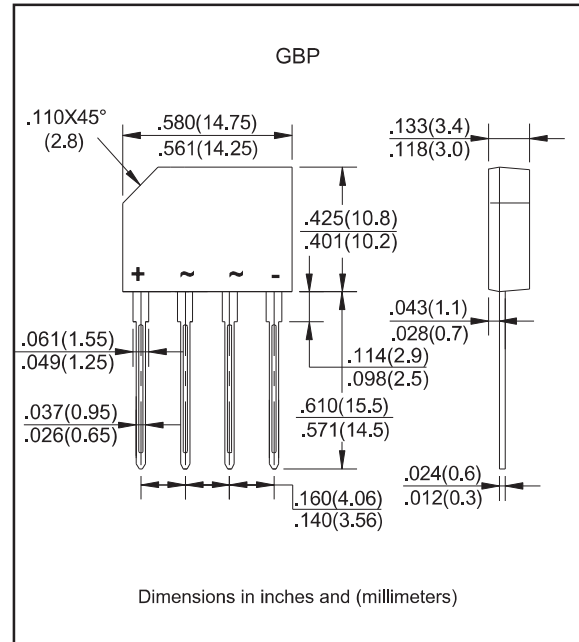
### Features

- Surge overload rating - 80 amperes peak.
- Ideal for 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. GBP310-H.

### Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, GBP
- 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	$I_{F(AV)}$			3.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	$I_{FSM}$			80	A
Reverse current	$V_R = V_{RRM} \quad T_J = 25^\circ\text{C}$	$I_R$			5.0	$\mu\text{A}$
	$V_R = V_{RRM} \quad T_J = 125^\circ\text{C}$				1000	
Rating for fusing	$t < 8.3 \text{ ms}$	$I^2t$			15	$\text{A}^2\text{s}$
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 $T_J, (^\circ\text{C})$
GBP3005	50	35	50	1.0	-55 to +150
GBP301	100	70	100		
GBP302	200	140	200		
GBP304	400	280	400		
GBP306	600	420	600		
GBP308	800	560	800		
GBP310	1000	700	1000		

\*1 Repetitive peak reverse voltage

\*2 RMS voltage

\*3 Continuous reverse voltage

\*4 Maximum forward voltage per bridge element@ $I_F=3.0\text{A}$

### Rating and characteristic curves (GBP3005 THRU GBP310)

FIG.1-DERATING CURVE  
OUTPUT RECTIFIED CURRENT

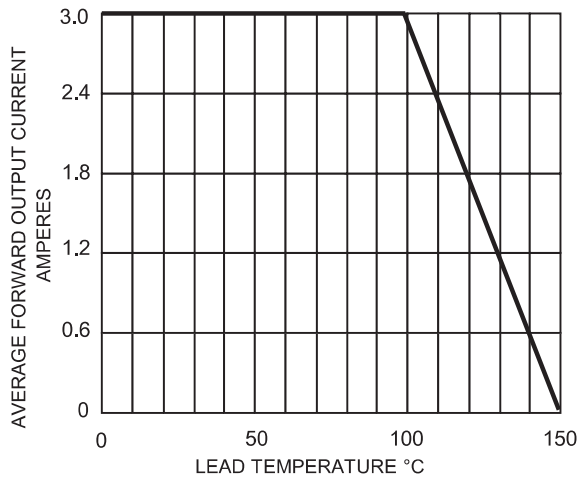


FIG.2-TYPICAL FORWARD CHARACTERISTICS

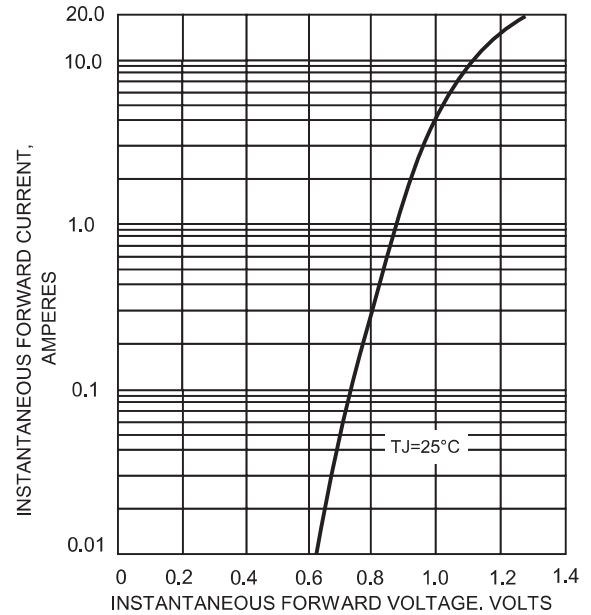


FIG.3-TYPICAL REVERSE CHARACTERISTICS

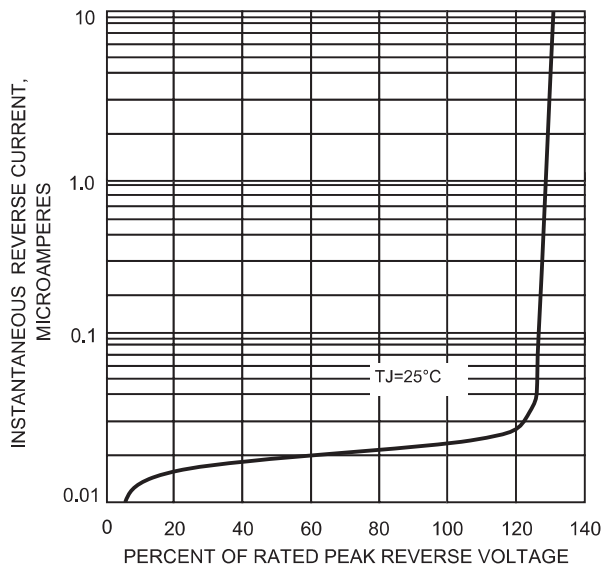
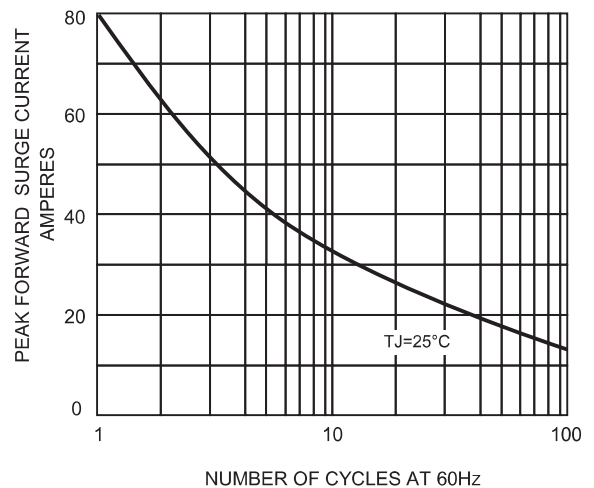
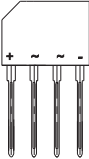
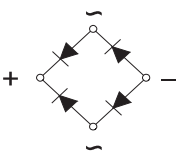


FIG.4-MAXIMUM FORWARD SURGE CURRENT



### Pinning information

Simplified outline	Symbol
	

### Marking

Type number	Marking code
GBP3005	GBP3005
GBP301	GBP301
GBP302	GBP302
GBP304	GBP304
GBP306	GBP306
GBP308	GBP308
GBP310	GBP310