

■ Features

- Ideal for printed circuit board.
- High forward surge current capability.
- Glass passivated chip junction.
- Suffix "G" indicates Halogen-free part.
- Lead free in compliance with EU RoHS.

■ Mechanical data

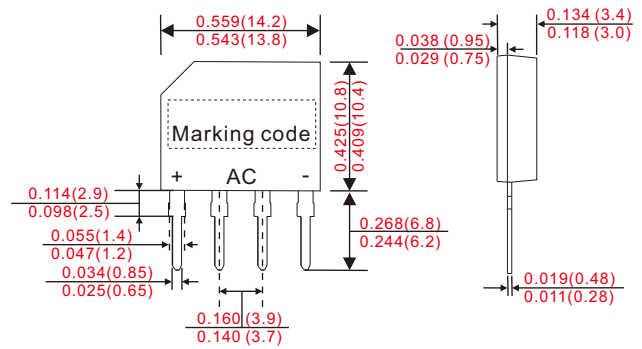
- Epoxy: UL94V-0 rated flame retardant
- Case : Molded plastic, GBP
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Weight : Approximated 1.3 gram

■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified.

■ Outline

GBP



Dimensions in inches and (millimeters)

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	with heatsink $T_A = 100^\circ\text{C}$	I_O			3.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			80	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25^\circ\text{C}$	I_R			5	uA
	$V_R = V_{RRM}$ $T_A = 125^\circ\text{C}$				500	
Current squared time	$t < 8.3\text{ms}$, $T_J = 25^\circ\text{C}$	I^2t		35		A ² S
Typical thermal resistance	Unit mount on P.C.B. 10mmx10mm copper pads	$R_{\theta JA}$		55		°C/W
Storage temperature		T_{STG}		-55 ~ +150		°C

Symbol	Marking code	Max. repetitive peak reverse voltage V_{RRM} (V)	Max. RMS voltage V_{RMS} (V)	Max. DC blocking voltage V_R (V)	Max. forward voltage @3A, $T_A = 25^\circ\text{C}$ V_F (V)	Operating Junction temperature T_J (°C)
GBP3005	GBP3005	50	35	50	1.1	-55 ~ +150
GBP301	GBP301	100	70	100		
GBP302	GBP302	200	140	200		
GBP304	GBP304	400	280	400		
GBP306	GBP306	600	420	600		
GBP308	GBP308	800	560	800		
GBP310	GBP310	1000	700	1000		

Rating and characteristic curves

Fig. 1 Derating Curve for Forward Rectified Current

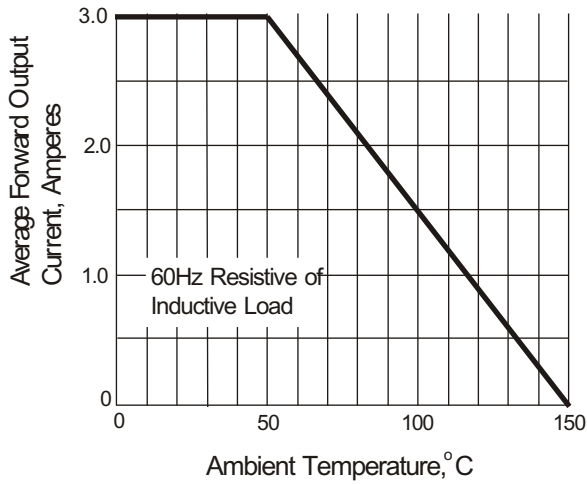


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

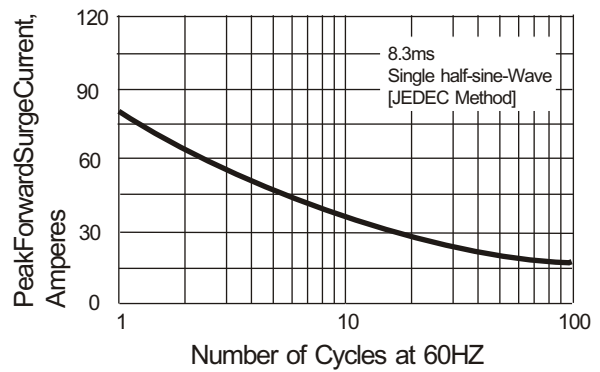


Fig. 3 Typical Instantaneous Forward Characteristics

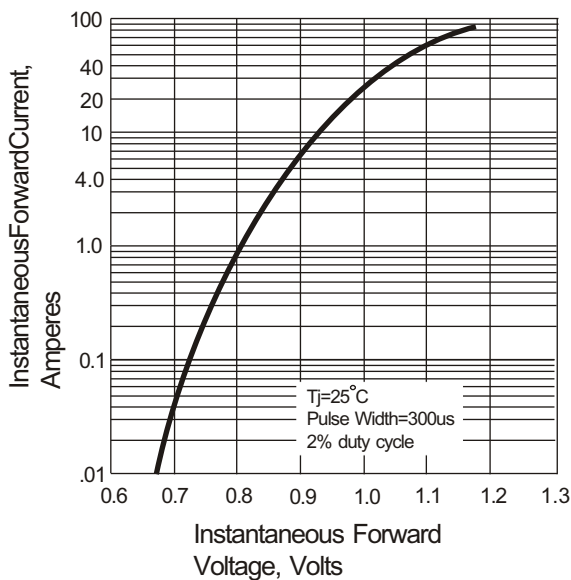


Fig. 4 Typical Reverse Characteristics

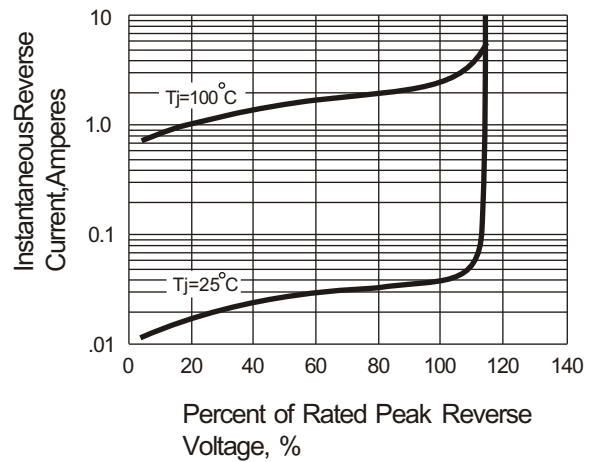
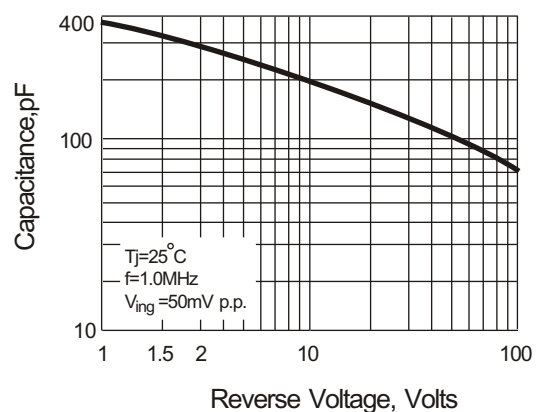


Fig. 5 Typical Junction Capacitance



■ Ordering/Packing information

	Part number	Case	Q'TY/Box (PCS)	Q'TY/Carton (PCS)
Halogen	GBP3005 Series	GBP	500	5000
Halogen free	GBP3005G Series			

Notes : 1. For packaging details please reference our website at <http://www.citcorp.com.tw/tchinese/products/index.php>

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