

# GBP Plastic-Encapsulate Bridge Rectifier

## Fast Recovery Bridge Rectifier

### Features:

- $I_{F(AV)}$  2A
- $V_{RRM}$  50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode

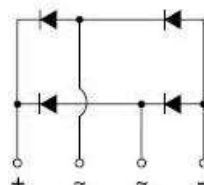
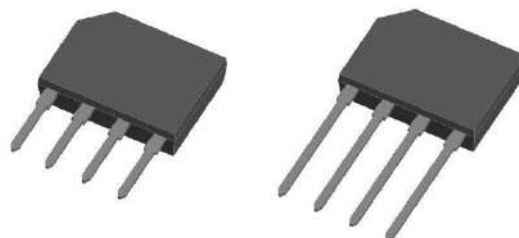
### Applications:

- Rectifier

### Marking

- GBP2XX  
 XX : From 005 To 10

GBP



### Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	GBP2						
				005	01	02	04	06	08	10
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		50	100	200	400	600	800	1000
Average Rectified Output Current	$I_o$	A	60Hz sine wave, R-load	$T_c=110^{\circ}C$		2.0				
Surge(Non-repetitive)Forward Current	$I_{FSM}$	A	60Hz sine wave, 1 cycle, $T_j=25^{\circ}C$		65					
Current Squared Time	$I^2t$	$A^2S$	$1ms \leq t < 8.3ms$ $T_j=25^{\circ}C$ , Rating of per diode		15					
Storage Temperature	$T_{stg}$	$^{\circ}C$	-55 ~+150							
Junction Temperature	$T_j$	$^{\circ}C$	-55 ~+150							

### Electrical Characteristics ( $T=25^{\circ}C$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition	GBP2						
				005	01	02	04	06	08	10
Peak Forward Voltage	$V_F$	V	$I_F=2.0A$	1.05						
Maximum reverse recovery time	$t_{rr}$	ns	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	150		250		500		
Peak Reverse Current	$I_{RRM1}$	$\mu A$	$V_{RM}=V_{RRM}$	$T_a=25^{\circ}C$		2.5				
	$I_{RRM2}$			$T_a=100^{\circ}C$		200				
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^{\circ}C/W$	Between junction and ambient		50					
	$R_{\theta J-L}$		Between junction and terminal		40					

### Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.27" x 0.27" (7.0 mm x 7.0 mm) copper pad areas

### Typical Characteristics

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

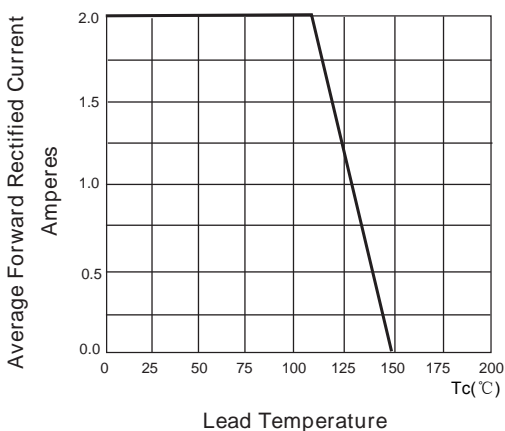


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

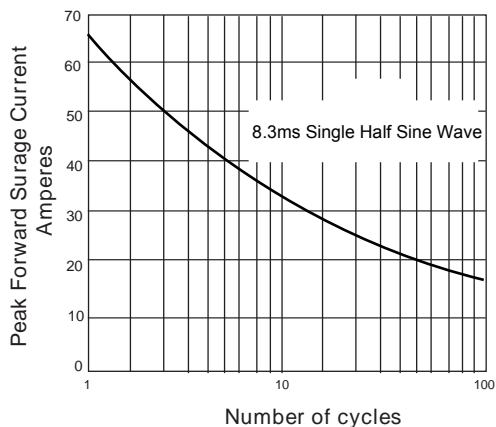


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

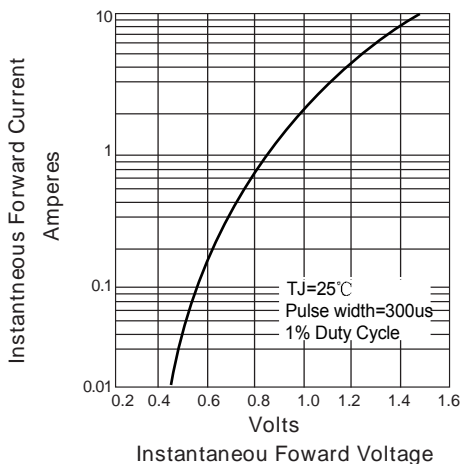


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

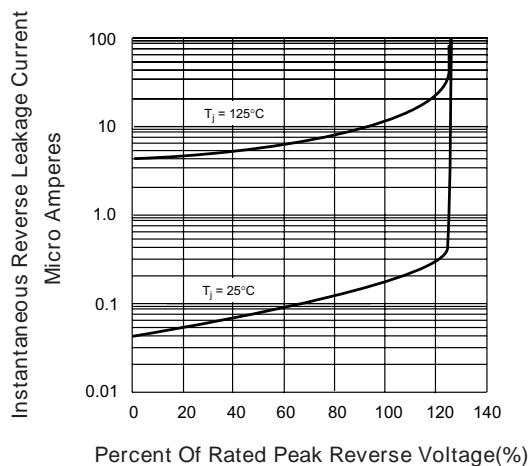
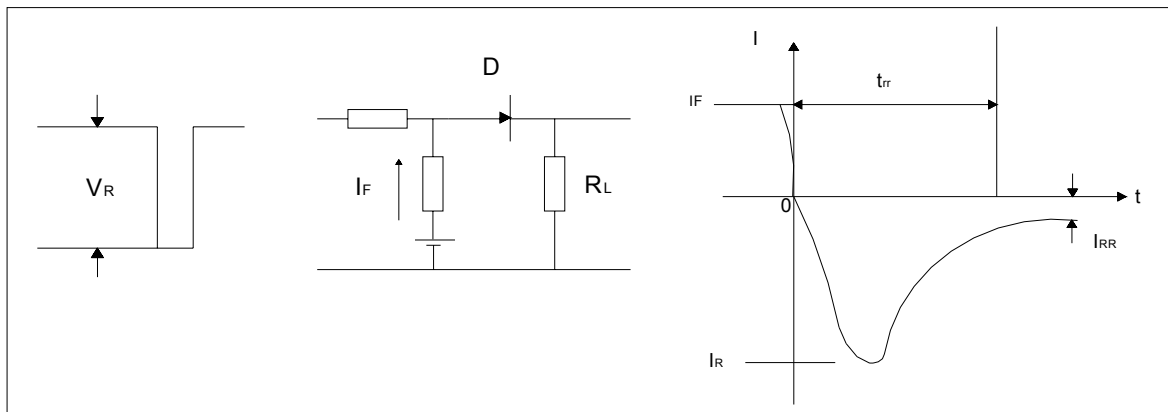
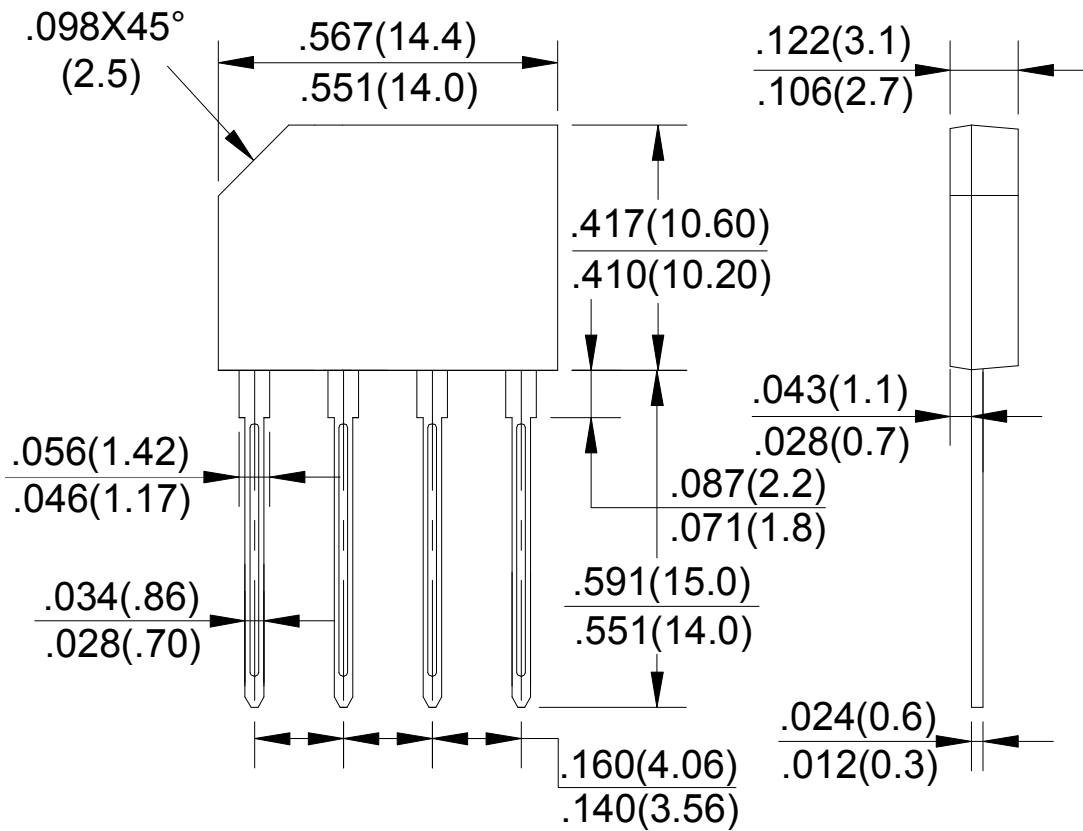
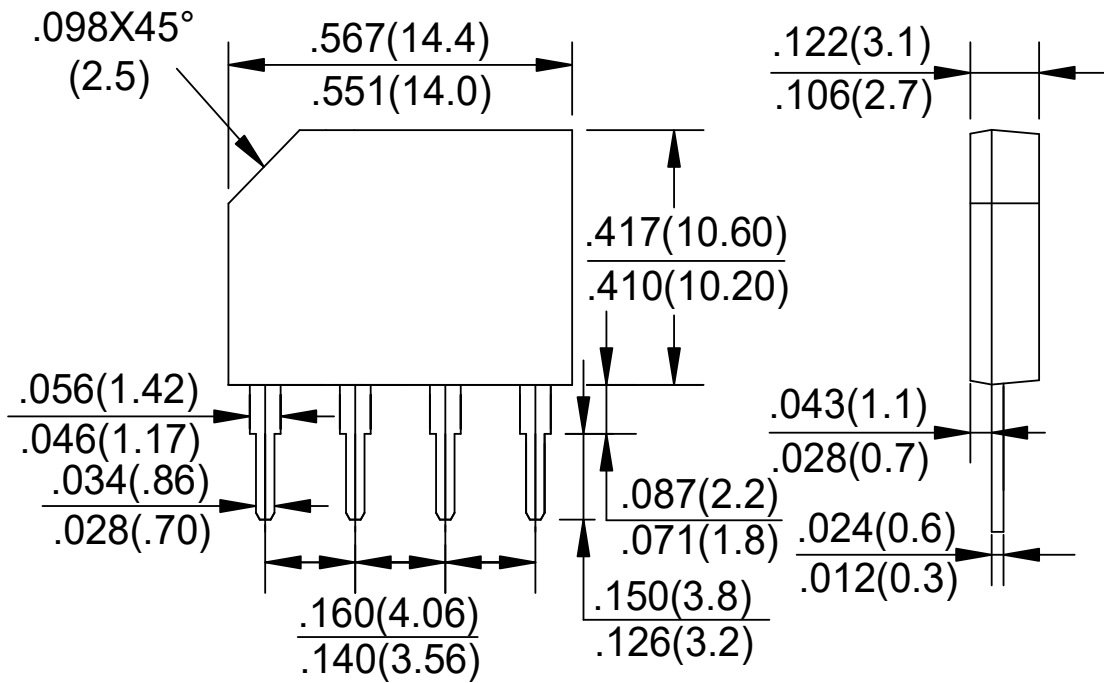


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



GBP Package Outline Dimensions



Dimensions in inches and (millimeters)