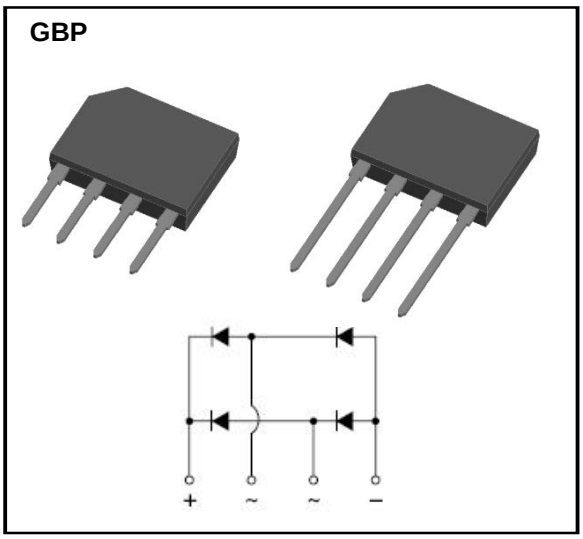
DONGGUAN NANJING ELECTRONICS LTD.,

GBP Plastic-Encapsulate Bridge Rectifier

GBP4005 THRU GBP410 General Purpose Bridge Rectifier

Features

- I_O 4A
- VRRM 50V-1000V
- High surge current capability
- Glass passivated chip



Applications

- General purpose 1 phase Bridge rectifier applications

Marking

- GBP4XX

XX：From 005 To 10

Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	GBP4						
				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 ,Ta=50℃	4.0						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz half-sine wave, 1 cycle, T_j=25℃	150						
Current Squared Time	I^2t	A^2S	1ms≤t<8.3ms Tj=25℃， Rating of per diode	64.8						
Storage Temperature	T_{stg}	℃		-55 ~+150						
Junction Temperature	T_j	℃		-55 ~+150						

Electrical Characteristics（T_a=25℃ Unless otherwise specified）

Item	Symbol	Unit	Test Condition	Max
Peak Forward Voltage	V_{FM}	V	I_{FM}=4.0A, Pulse measurement, Rating of per diode	1.1
Peak Reverse Current	I_{RRM}	μA	$V_{RM}=V_{RRM}$, Pulse measurement, Rating of per diode	5
Thermal Resistance	$R_{\theta J-A}$	℃/W	Between junction and ambient	47
	$R_{\theta J-C}$		Between junction and case	10

Typical Characteristics

FIG.1-MAXIMUM NON-REPETITIVE SURGE CURRENT

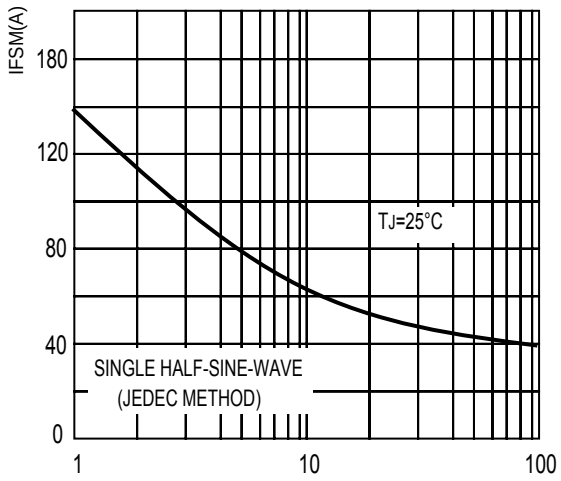


FIG.2-FORWARD DERATING CURRENT

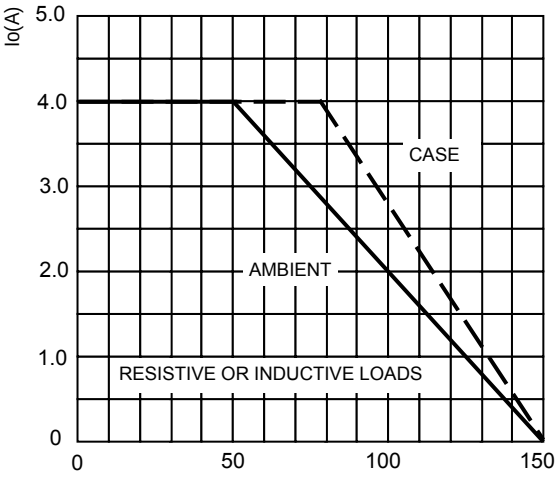


FIG.3-TYPICAL FORWARD CHARACTERISTICS

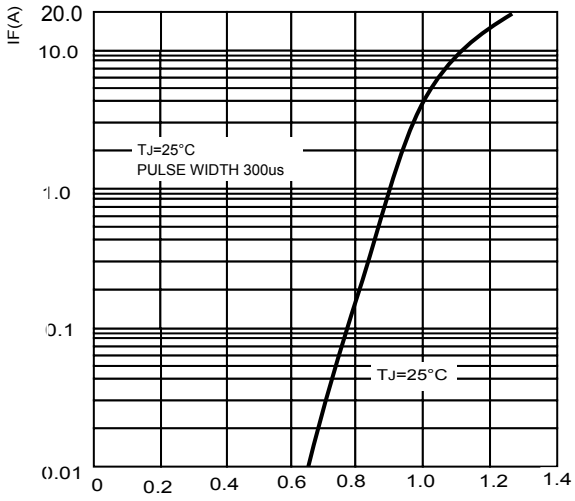
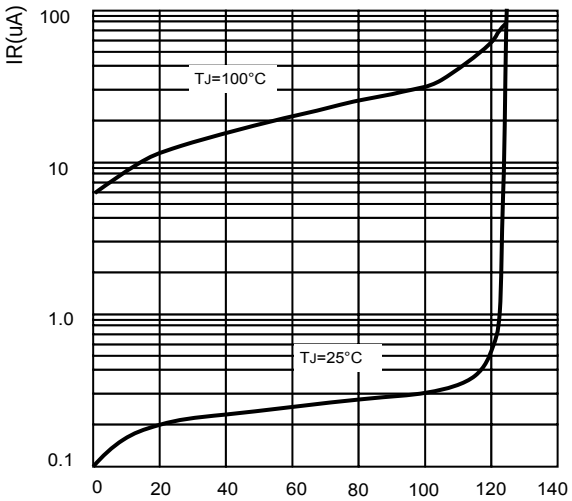
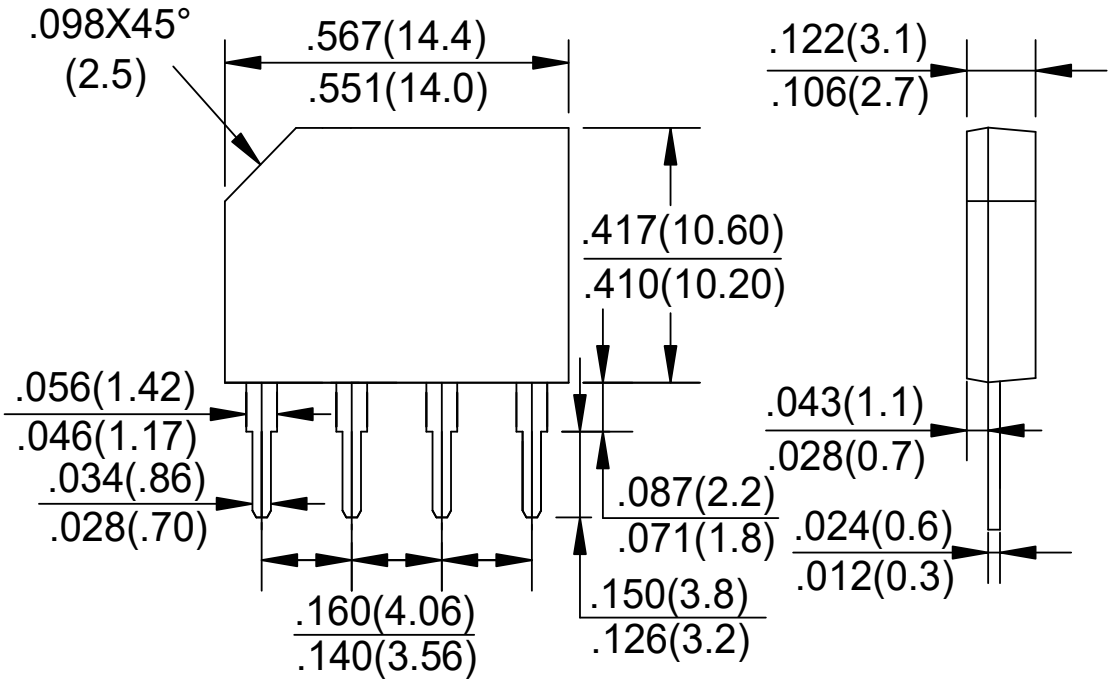
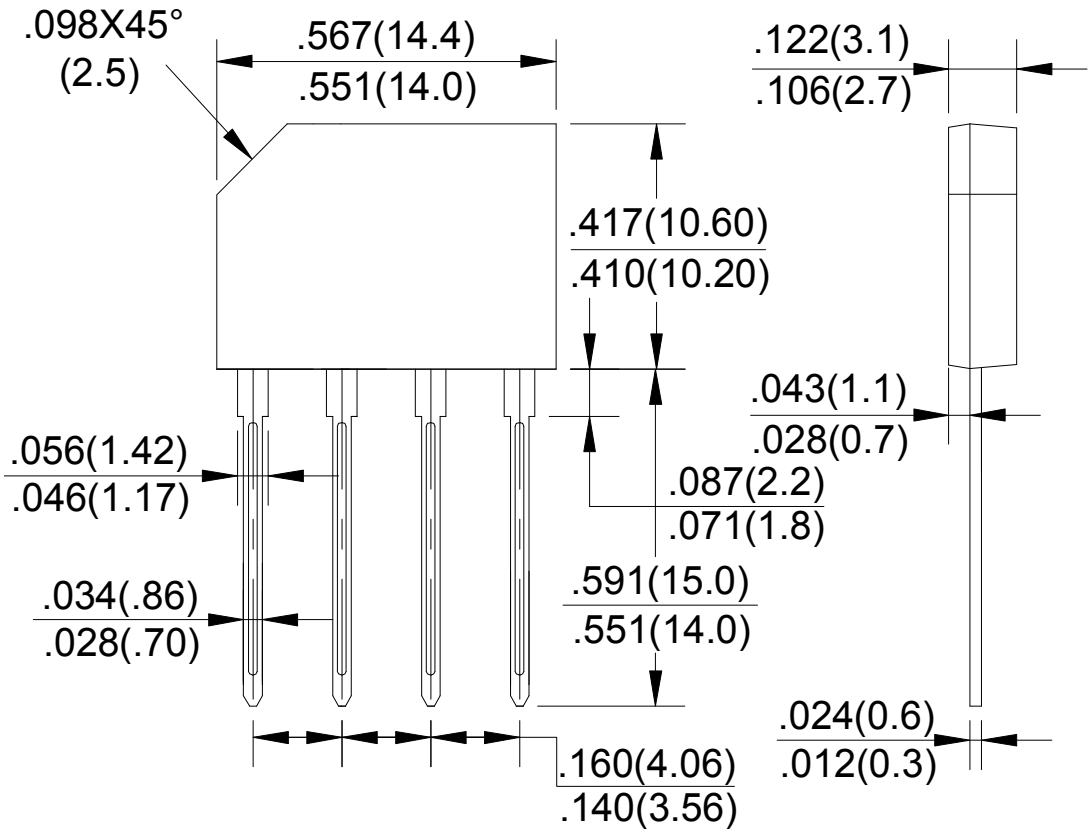


FIG.4-TYPICAL REVERSE CHARACTERISTICS



GBP Package Outline Dimensions





Dimensions in inches and (milimeters)