



GBPC50005 THRU GBPC5010

桥式整流器 Bridge Rectifier

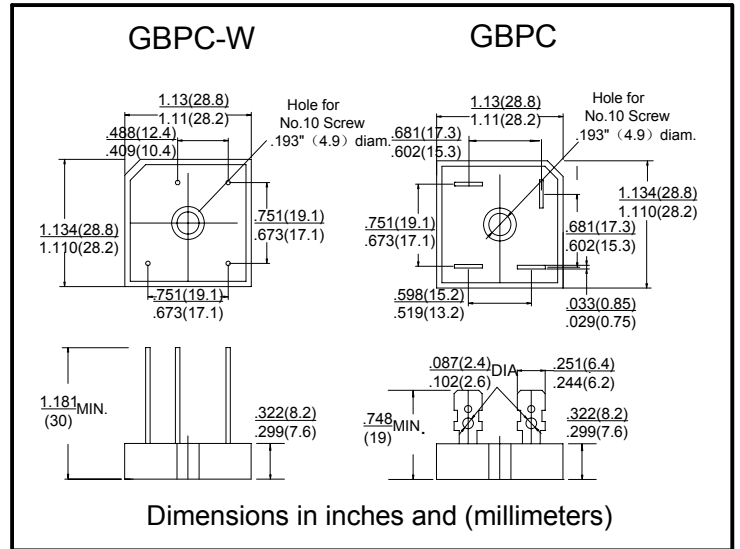
■特征 Features

- I_o 50A
- V_{RRM} 50V~1000V
- 玻璃钝化芯片
Glass passivated chip
- 耐正向浪涌电流能力高
High surge forward current capability

■用途 Applications

- 作一般电源单相桥式整流用
General purpose 1 phase Bridge rectifier applications

■外形尺寸和印记 Outline Dimensions and Mark



■极限值（绝对最大额定值）

Limiting Values (Absolute Maximum Rating)

参数名称 Item	符号 Symbol	单位 Unit	条件 Conditions	GBPC50						
				005	01	02	04	06	08	10
反向重复峰值电压 Repetitive Peak Reverse Voltage	V_{RRM}	V		50	100	200	400	600	800	1000
平均整流输出电流 Average Rectified Output Current	I_o	A	60Hz正弦波, 电阻负载 60Hz sine wave, R-load	用散热器 $T_c=55^\circ\text{C}$ With heatsink $T_c=55^\circ\text{C}$						
正向（不重复）浪涌电流 Surge(Non-repetitive) Forward Current	I_{FSM}	A	60Hz正弦波, 一个周期, $T_a=25^\circ\text{C}$ 60Hz sine wave, 1 cycle, $T_a=25^\circ\text{C}$	500						
正向浪涌电流的平方对电流浪涌持续时间的积分值 Current Squared Time	I^2t	A^2S	$1\text{ms} \leq t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$, 单个二极管 $1\text{ms} \leq t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$, Rating of per diode	1040						
存储温度 Storage Temperature	T_{stg}	$^\circ\text{C}$		-55 ~ +150						
结温 Junction Temperature	T_j	$^\circ\text{C}$		-55 ~ +150						
绝缘耐压 Dielectric Strength	V_{dis}	KV	端子与外壳之间外加交流电, 一分钟 Terminals to case, AC 1 minute	2.5						

■电特性（ $T_a=25^\circ\text{C}$ 除非另有规定）

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

参数名称 Item	符号 Symbol	单位 Unit	测试条件 Test Condition	最大值 Max
正向峰值电压 Peak Forward Voltage	V_{FM}	V	$I_{FM}=25\text{A}$, 脉冲测试, 单个二极管的额定值 $I_{FM}=25\text{A}$, Pulse measurement, Rating of per diode	1.1
反向峰值电流 Peak Reverse Current	I_{RRM}	μA	$V_{RM}=V_{RRM}$, 脉冲测试, 单个二极管的额定值 $V_{RM}=V_{RRM}$, Pulse measurement, Rating of per diode	10
热阻 Thermal Resistance	$R_{\theta J-C}$	$^\circ\text{C}/\text{W}$	结和管壳之间, 用散热片 Between junction and case, With heatsink	0.95



■特性曲线（典型） Characteristics(Typical)

图1: I_o - T_a 曲线
FIG1: I_o - T_a Curve

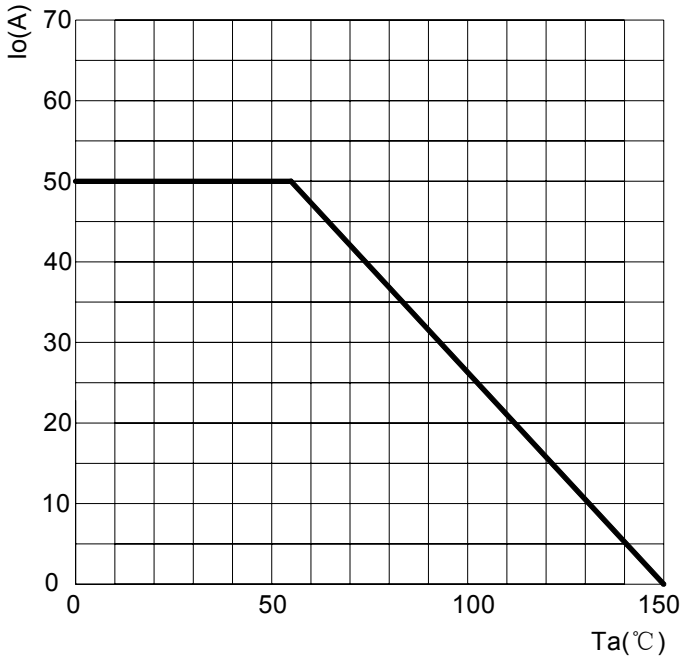


图2: 耐正向浪涌电流曲线
FIG2:Surge Forward Current Capadility

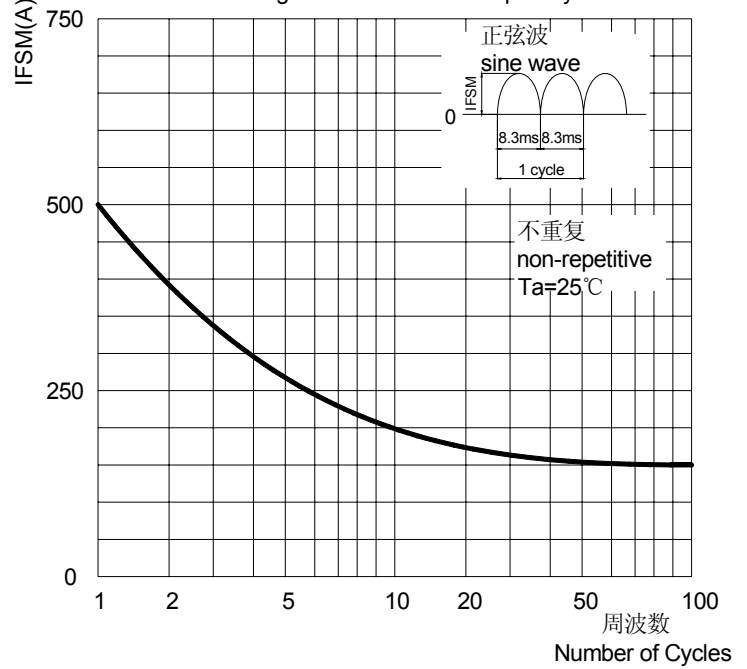


图3: 正向电压曲线
FIG3:Instantaneous Forward Voltage

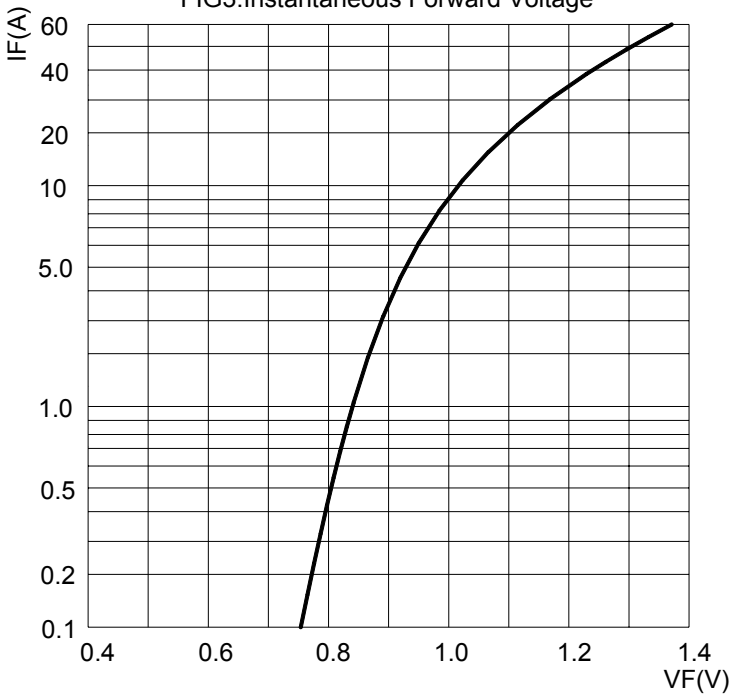


图4: 反向电流曲线
FIG4:Typical Reverse Characteristics

