

25A,600V-1200V 单相玻璃钝化整流桥

25A,600V-1200V Single Phase Glass Passivated Bridge Rectifier

■特征 Features

玻璃钝化芯片
Glass passivated chip
低反向漏电流
Low reverse leakage current
高耐浪涌电流能力
High surge current capability

关键参数 KEY PARAMETERS		
参数 PARAMETER	数值 VALUE	单位 UNIT
$I_{F(AV)}$	25	A
V_{RRM}	600-1200	V
I_{FSM}	300	A
Package	GBPC	

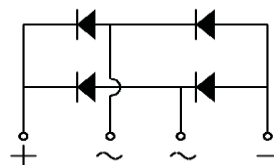
■应用范围 Applications

电焊机
Electric welder
工业电源
Industrial power supply
逆变器
Inverter
不间断电源
Uninterruptible power supply



■机械参数 Mechanical Data

本体：GBPC
Case: GBPC
极性：极性符号铸在管体上
Polarity: Polarity symbols being marked on body
安装扭矩：12.0 kgf.cm
Mounting torque: 12.0 kgf.cm max
重量：约 20 克
Weight: About 20 grams



■最大额定值 Maximum Ratings @ Ta = 25°C unless otherwise noted

参数 PARAMETER	符号 SYMBOL	GBPC2506	GBPC2508	GBPC2510	GBPC2512	单位 UNIT
反向重复峰值电压 Maximum recurrent peak reverse voltage	V_{RRM}	600	800	1000	1200	V
平均整流输出电流 Average rectified output current	$I_{(AV)}$	25				A
带散热片, $T_c=85^\circ\text{C}$ with heatsink $T_c=85^\circ\text{C}$						
最大正向浪涌电流, 8.3ms 单半正弦波叠加在额定负载上 Peak surge forward current, 8.3ms single half sinewave superimposed on rated load	I_{FSM}	300				A
热容值, $1\text{ms} < t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$, 单个二极管 Rating for fusing $1\text{ms} < t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$, Rating of per diode	I^2t	508				A^2s
结温 Junction temperature	T_j	$-55 \sim +150$				$^\circ\text{C}$
存储温度 Storage temperature	T_{STG}	$-55 \sim +150$				$^\circ\text{C}$
绝缘耐压, 端子与外壳之间外加交流电 1 分钟 Dielectric strength terminals to case AC 1 minute	V_{dis}	2.5				KV

■电性特性 Electrical Characteristics @ Ta = 25 °C unless otherwise noted

参数 PARAMETER	条件 CONDITIONS	符号 SYMBOL	额定值 RATED VALUE	单位 UNIT
正向峰值电压 Peak Forward Voltage	$I_F = 12.5A$	V_F	1.1	V
反向峰值电流 Peak Reverse Current	VR=VRRM , 脉冲测试, 单个二极管的额定值 VR=VRRM , Pulse measurement Rating of per diode	I_R	5	μA
	$T_J = 25^{\circ}C$		500	

■热特性 Thermal Characteristics @ Ta =25°C unless otherwise noted

参数 PARAMETER	符号 SYMBOL	额定值 RATED VALUE	单位 UNIT
结到环境的热阻, 无散热片 Junction to ambient thermal resistance without heatsink	$R_{\theta JA}$	26	$^{\circ}C/W$
结到管壳的热阻, 有散热片 Junction to case thermal resistance with heatsink	$R_{\theta JC}$	1.5	$^{\circ}C/W$

■特性曲线 Characteristic Curve

FIG1.Derating Curve For Output Rectified Current

图1. 电流降额曲线

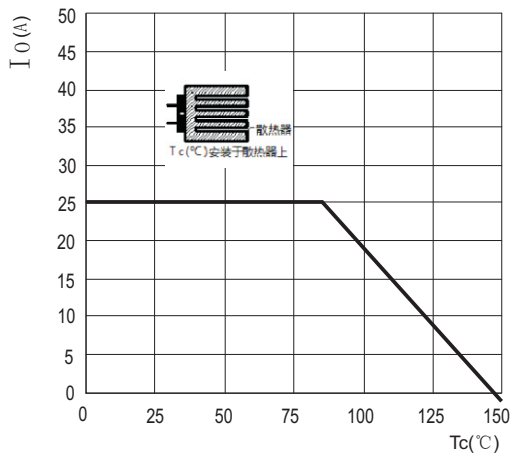


FIG2 .Maximum NonRepetitive Peak Forward Surge Current Per Bridge Element

图2. 最大正向不重复峰值浪涌电流

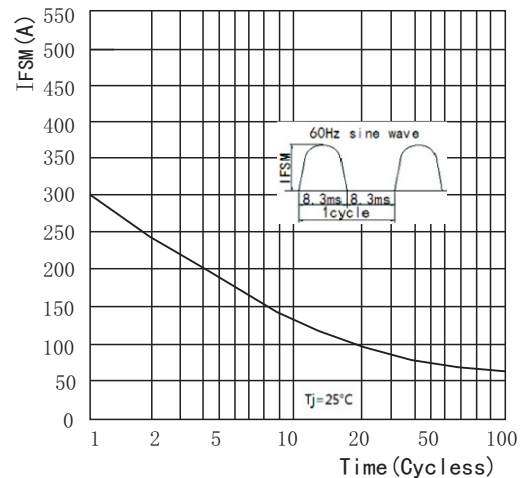


FIG3.Typical Reverse Characteristics Per Bridge Element

图3. 典型反向特性

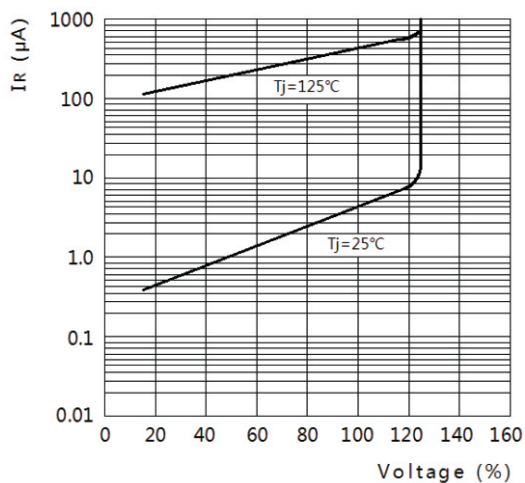
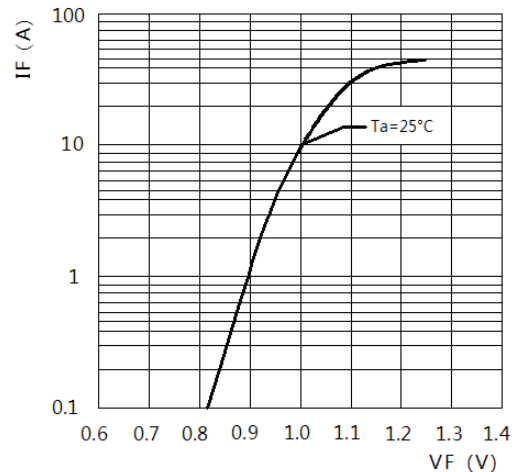
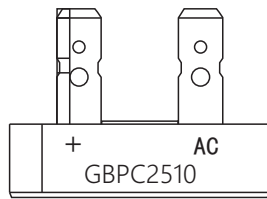


FIG4.Typical Forward Characteristics Per Bridge Element

图4. 典型正向特性



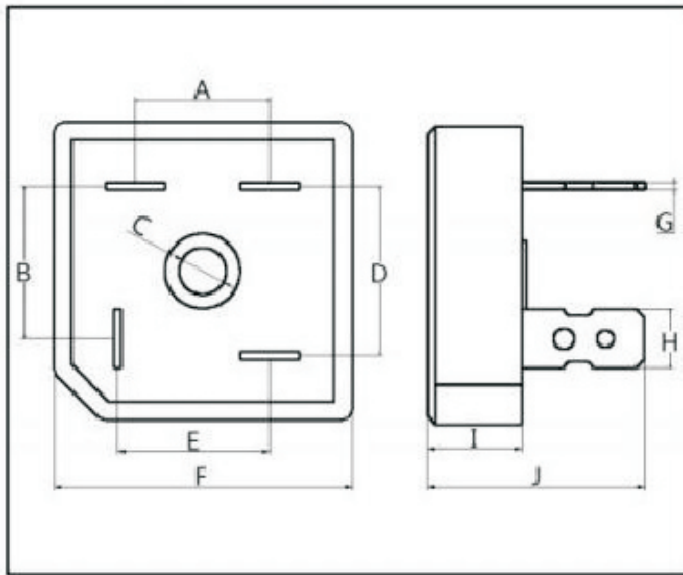
■ 标记图 Marking Diagram



GBPC2510 : 标识代码

Marking code

■ 尺寸图 Dimension Drawing



Dim.	Unit(mm)		Unit(inch)	
	Min.	Max.	Min.	Max.
A	13.90	14.90	0.547	0.587
B	15.70	16.70	0.618	0.657
C	4.50	5.50	0.177	0.217
D	17.50	18.50	0.689	0.728
E	15.70	16.70	0.618	0.657
F	31.0	32.0	1.220	1.260
G	0.60	1.00	0.024	0.039
H	6.10	6.50	0.240	0.256
I	9.50	10.50	0.374	0.413
J	22.00	24.00	0.866	0.945