

50A,1000V-1600V 单相玻璃钝化整流桥 50A,1000V-1600V 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
- 符合 RoHS 指令 2011/65/EU
Compliant to RoHS directive 2011/65/EU

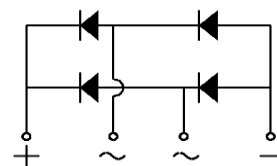
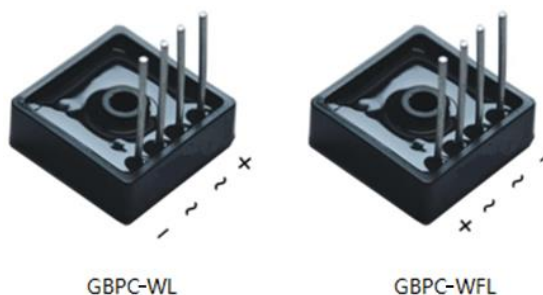
■应用范围 Applications

- 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-WL&WFL
Case : GBPC-WL&WFL
- 极性: 极性符号铸在管体上
Polarity: Polarity symbols being marked on body
- 安装扭矩: 12 kgf.cm
Mounting torque: 12 kgf.cm max
- 重量: 约 17 克
Weight : About 17 grams

关键参数 KEY PARAMETERS		
参数 PARAMETER	数值 VALUE	单位 UNIT
$I_{F(AV)}$	50	A
V_{RRM}	1000-1600	V
I_{FSM}	500	A
Package	GBPC-WL&WFL	



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

参数 PARAMETER	符号 SYMBOL	GBPC5010 WL	GBPC5012 WL	GBPC5016 WL	单位 UNIT
		GBPC5010 WFL	GBPC5012 WFL	GBPC5016 WFL	
反向重复峰值电压 Maximum recurrent peak reverse voltage	V_{RRM}	1000	1200	1600	V
平均整流输出电流 Average rectified output current	$I_{(AV)}$	50			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 sine-wave superimposed on rated load	I_{FSM}	500			A
热容值, 1ms<t<8.3ms, $T_J=25^{\circ}\text{C}$, 单个二极管 Rating for fusing, 1ms<t<8.3ms, $T_J=25^{\circ}\text{C}$, Rating of per diode	I^2t	1037			A^2s
结温 Junction temperature	T_J	-55 ~ +150			$^{\circ}\text{C}$
存储温度 Storage temperature	T_{STG}	-55 ~ +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}	2.0			KV

■电性特性 Electrical Characteristics @ Ta = 25℃ 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	$I_F = 25A$	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
			500	

■热特性 Thermal Characteristics @ Ta = 25℃ 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	℃/W
结到管壳的热阻, 有散热片 Junction to case thermal resistance, with heatsink	$R_{\theta JC}$	0.85	℃/W

■特性曲线 Characteristic Curve

FIG1.Derating Curve For Output Rectified Current

图 1. 电流降额曲线

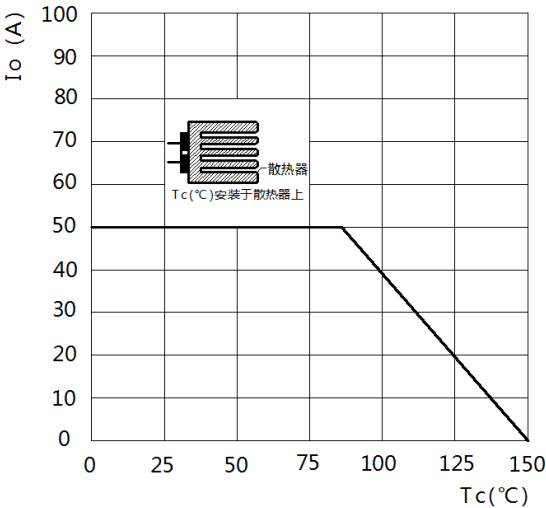


FIG2.Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

图 2. 最大正向不重复峰值浪涌电流

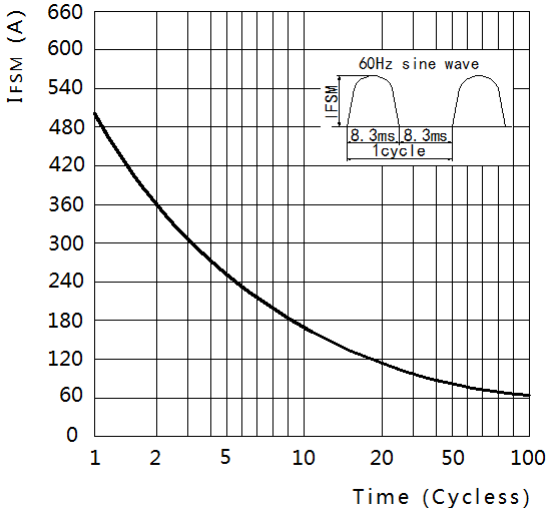


FIG3.Typical Reverse Characteristics Per Bridge Element

图 3. 典型反向特性

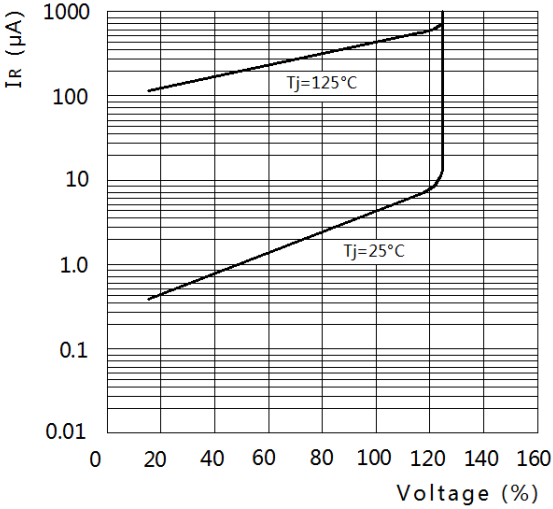
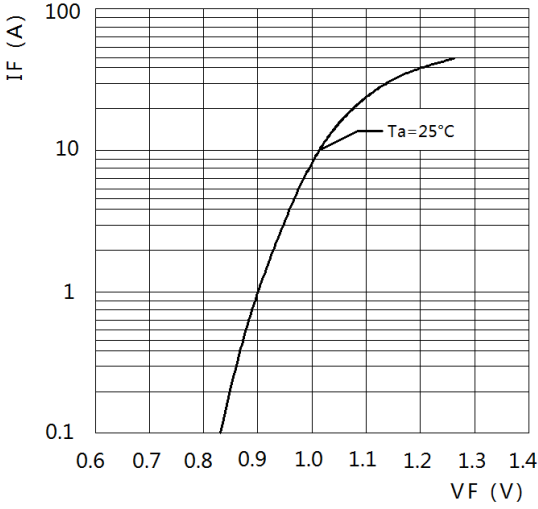
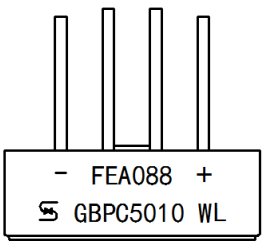


FIG4.Typical Forward Characteristics Per Bridge Element

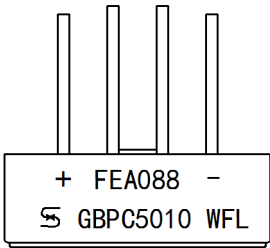
图 4. 典型正向特性



■标记图 Marking Diagram

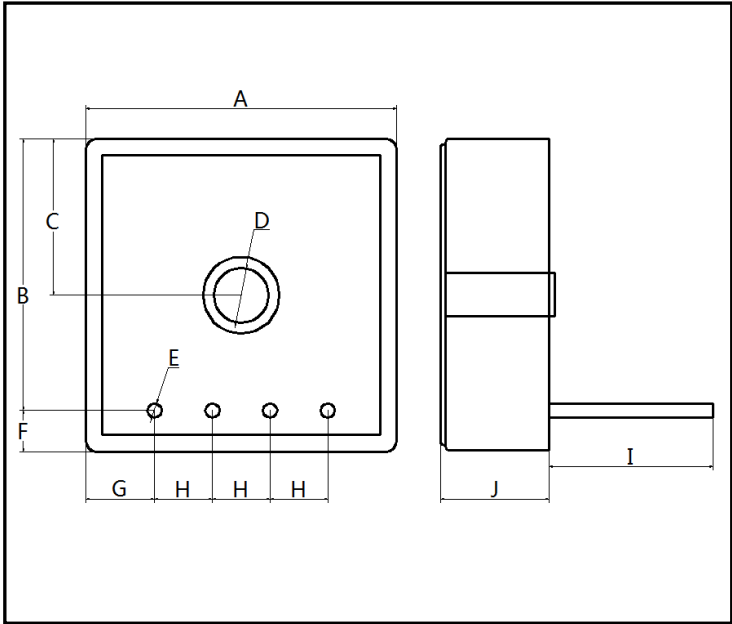


GBPC5010 WL：标识代码
Marking code
FEA088：制程码
Process code



GBPC5010 WFL：标识代码
Marking code
FEA088：制程码
Process code

■尺寸图 Dimension Drawing



Dim.	Unit(mm)		Unit(inch)	
	Min.	Max.	Min.	Max.
A	28.00	29.00	1.102	1.142
B	24.30	25.30	0.957	0.996
C	13.80	14.80	0.543	0.583
D	4.50	5.50	0.177	0.217
E	1.10	1.50	0.043	0.059
F	3.30	4.30	0.130	0.169
G	5.80	6.80	0.228	0.268
H	4.80	5.80	0.189	0.228
I	15.00	-	0.591	-
J	9.50	10.50	0.374	0.413

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