

## 50A,1000V-1600V 三相玻璃钝化整流桥 50A,1000V-1600V Three 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
- UL 档案编号# E249161  
UL recognized file # E249161
- 符合 RoHS 指令 2011/65/EU  
Compliant to RoHS directive 2011/65/EU

| 关键参数<br>KEY PARAMETERS |             |            |
|------------------------|-------------|------------|
| 参数<br>PARAMETER        | 数值<br>VALUE | 单位<br>UNIT |
| $I_{F(AV)}$            | 50          | A          |
| $V_{RRM}$              | 1000-1600   | V          |
| $I_{FSM}$              | 550         | A          |
| Package                | SGBPC       |            |

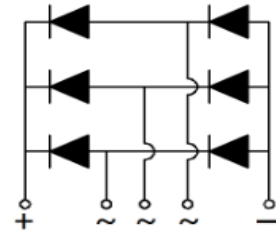
### ■应用范围 Applications

- 变频器  
Frequency converter
- 伺服  
Servo
- 工业电源  
Industrial power supply



### ■机械参数 Mechanical Data

- 本体: SGBPC  
Case : SGBPC
- 极性: 极性符号铸在管体上  
Polarity: Polarity symbols being marked on body
- 安装扭矩: 8.0kgf.cm  
Mounting torque: 8.0kgf.cm max
- 重量: 约 31 克  
Weight : About 31 grams



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

| 参数<br>PARAMETER  | 符号<br>SYMBOL | SGBPC5010  | SGBPC5012 | SGBPC5016 | 单位<br>UNIT       |
|--|--------------|------------|-----------|-----------|------------------|
| 反向重复峰值电压<br>Maximum recurrent peak reverse voltage   | $V_{RRM}$    | 1000       | 1200      | 1600      | V                |
| 平均整流输出电流<br>Average rectified output current   | $I_{(AV)}$   | 50         |           |           | A                |
| 带散热片, $T_C=85^\circ\text{C}$<br>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<br>Peak surge forward current, 8.3ms single half sine-wave superimposed on rated load              | $I_{FSM}$    | 550        |           |           | A                |
| 热容值, 1ms<t<8.3ms, $T_j=25^\circ\text{C}$ , 单个二极管<br>Rating for fusing, 1ms<t<8.3ms, $T_j=25^\circ\text{C}$ , Rating of per diode | $I^2t$       | 1255       |           |           | A <sup>2</sup> s |
| 结温<br>Junction temperature   | $T_j$        | -55 ~ +150 |           |           | °C               |
| 存储温度<br>Storage temperature  | $T_{STG}$    | -55 ~ +150 |           |           | °C               |
| 绝缘耐压, 端子与外壳之间外加交流电 1 分钟<br>Dielectric strength, terminals to case AC 1 minute  | $V_{dis}$    | 2.0        |           |           | KV               |

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

| 参数<br>PARAMETER                | 条件<br>CONDITIONS  | 符号<br>SYMBOL | SGBPC<br>5010 | SGBPC<br>5012 | SGBPC<br>5016 | 单位<br>UNIT |
|--------------------------------|---|--------------|---------------|---------------|---------------|------------|
| 正向峰值电压<br>Peak Forward Voltage | $I_F = 25A$   | $V_F$        | 1.1           |               | 1.2           | V          |
| 反向峰值电流<br>Peak Reverse Current | VR=VRRM, 脉冲测试, 单个二极管的<br>额定值<br>VR=VRRM, Pulse measurement Rating<br>of per diode | $I_R$        | 5             |               |               | $\mu A$    |
|                                |   |              | 500           |               |               |            |

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

| 参数<br>PARAMETER   | 符号<br>SYMBOL    | 额定值<br>RATED VALUE | 单位<br>UNIT |
|---|-----------------|--------------------|------------|
| 结到环境的热阻, 无散热片<br>Junction to ambient thermal resistance, without heatsink | $R_{\theta JA}$ | 18                 | °C/W       |
| 结到管壳的热阻, 有散热片<br>Junction to case thermal resistance, with heatsink       | $R_{\theta JC}$ | 0.9                | °C/W       |

## ■特性曲线 Characteristic Curve

FIG1. Derating Curve For Output Rectified Current

图 1. 电流降额曲线

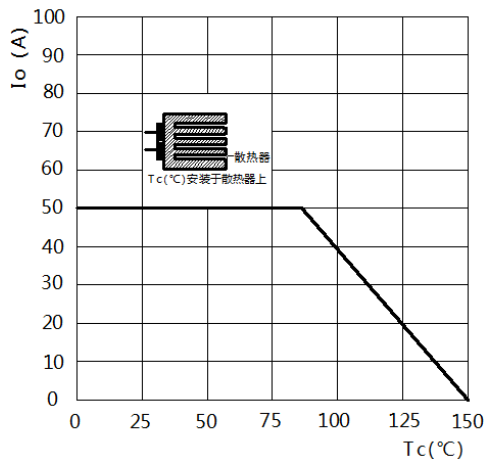


FIG2. Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

图 2. 最大正向不重复峰值浪涌电流

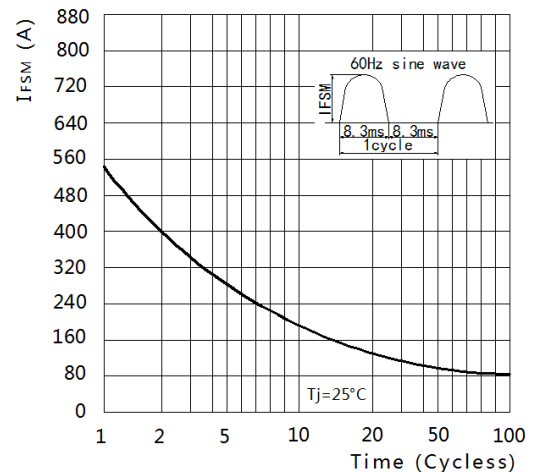


FIG3. Typical Reverse Characteristics Per Bridge Element

图 3. 典型反向特性

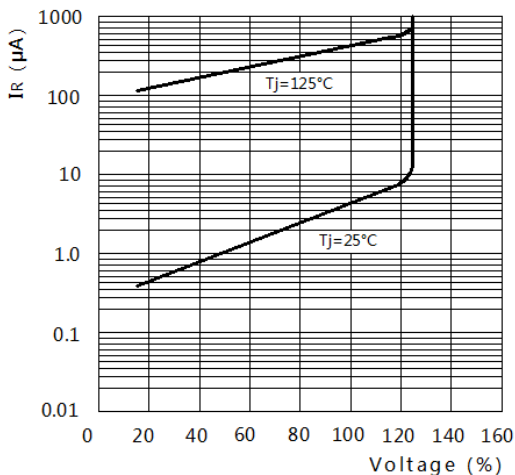
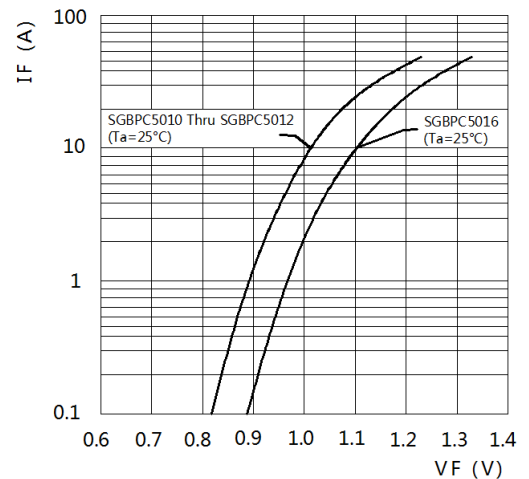
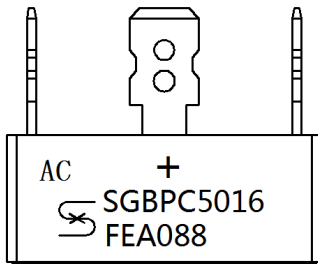


FIG4. Typical Forward Characteristics Per Bridge Element

图 4. 典型正向特性



■标记图 Marking Diagram



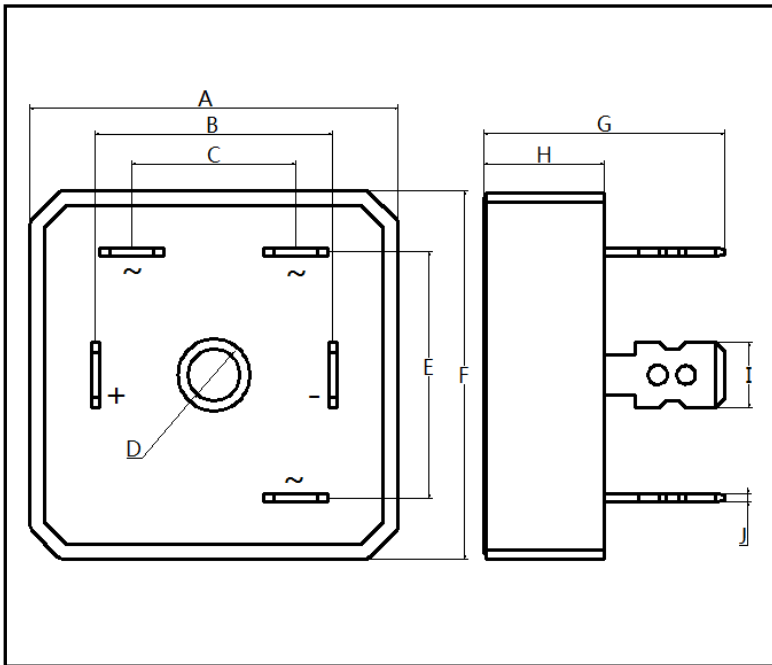
SGBPC5016 : 标识代码

Marking code

FEA088 : 制程码

Process code

■尺寸图 Dimension Drawing



| Dim. | Unit(mm) |       | Unit(inch) |       |
|------|----------|-------|------------|-------|
|      | Min.     | Max.  | Min.       | Max.  |
| A    | 35.50    | 36.50 | 1.398      | 1.437 |
| B    | 22.70    | 23.70 | 0.894      | 0.933 |
| C    | 15.50    | 16.50 | 0.610      | 0.650 |
| D    | 4.50     | 5.50  | 0.177      | 0.217 |
| E    | 23.50    | 24.50 | 0.925      | 0.965 |
| F    | 35.50    | 36.50 | 1.398      | 1.437 |
| G    | 22.50    | 24.50 | 0.886      | 0.965 |
| H    | 11.20    | 12.20 | 0.441      | 0.480 |
| I    | 6.10     | 6.50  | 0.240      | 0.256 |
| J    | 0.60     | 1.00  | 0.024      | 0.039 |