



## 沟槽肖特基二极管 Trench SCHOTTKY Diodes

## ■特征 Features

- 低正向, 低漏电  
Low VF, low IR
- 低功耗, 大电流  
Low Power loss, High efficiency
- 高静电能力 (ESD $\geq$ 30KV)  
参考标准: IEC-61000-4-2, 接触式  
High ESD (ESD $\geq$ 30KV)  
Reference standard: IEC - 61000-4-2, contact
- IF (AV) 30A
- VRRM 45V

## ■用途 Applications

- 太阳能行业  
The solar industry

## ■极限值 (绝对最大额定值)

Limiting Values (Absolute Maximum Rating)

| 参数名称<br>Item                                          | 符号<br>Symbol     | 单位<br>Unit           | 条件<br>Conditions                                                                                                                            | GFMK3045   |
|-------------------------------------------------------|------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 反向重复峰值电压<br>Repetitive Peak Reverse Voltage           | VRRM             | V                    | $I_R=0.2\text{mA}; T_a=25^\circ\text{C}$                                                                                                    | 45         |
| 平均整流输出电流<br>Average Rectified Output Current          | $I_o$            | A                    | 60HZ 正弦波, 电阻负载, $T_a=25^\circ\text{C}$<br>60HZ sine wave, R-load, $T_a=25^\circ\text{C}$                                                    | 30         |
| 正向 (不重复) 浪涌电流<br>Surge(Non-repetitive)Forward Current | IFSM             | A                    | 60HZ 正弦波, 一个周期, $T_a=25^\circ\text{C}$<br>60HZ sine wave, 1 cycle, $T_a=25^\circ\text{C}$                                                   | 275        |
| 正向浪涌电流的平方对电流浪涌持续时间积分值<br>Current Squared Time         | $I^2t$           | $\text{A}^2\text{s}$ | $1\text{ms}\leq t<8.3\text{ms } T_j=25^\circ\text{C}$                                                                                       | 315        |
| 储存温度<br>Storage Temperature                           | $T_{\text{stg}}$ | $^\circ\text{C}$     |                                                                                                                                             | -55 ~ +150 |
| 结温<br>Junction Temperature                            | $T_j$            | $^\circ\text{C}$     | 在正向直流条件下, 没有施加反向压降, 通电 $\leq 1\text{h}$ (图示1) ①<br>IN DC Forward Mode-Forward Operations, without reverse bias, $t\leq 1\text{h}$ (Fig. 1)① | -55~+200   |

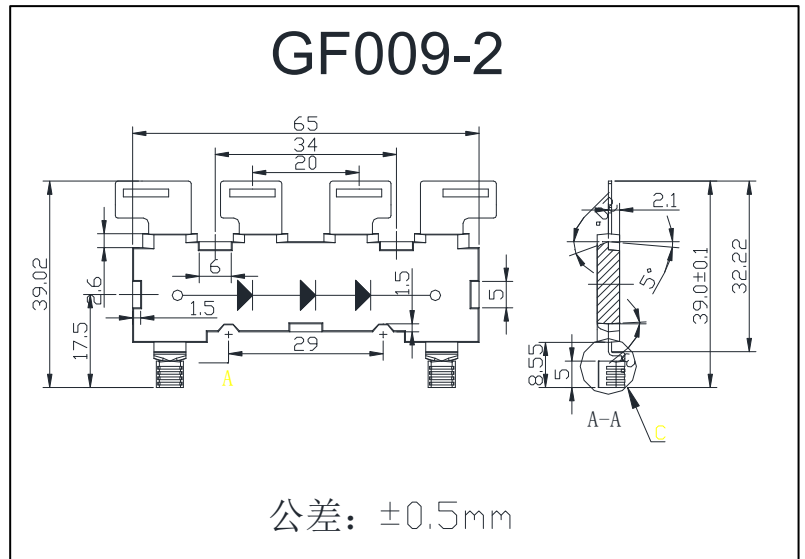
■电特性 ( $T_a=25^\circ\text{C}$  除非另有规定)Electrical Characteristics ( $T_a=25^\circ\text{C}$  Unless otherwise specified)

| 参数名称<br>Item                           | 符号<br>Symbol     | 单位<br>Unit                | 测试条件<br>Test Condition                    | 最大值<br>Max                                        |
|----------------------------------------|------------------|---------------------------|-------------------------------------------|---------------------------------------------------|
| 正向峰值电压<br>Peak Forward Voltage         | VFM              | V                         | $I_{\text{FM}}=30.0\text{A}$ (Every Chip) | 0.60                                              |
| 反向峰值电流<br>Peak Reverse Current         | IRRM1            | mA                        | $V_{\text{RM}}=V_{\text{RRM}}$            | $T_a=25^\circ\text{C}$<br>0.1                     |
|                                        | IRRM2            |                           |                                           | $T_a=100^\circ\text{C}/125^\circ\text{C}$<br>7/20 |
| 热阻 (典型)<br>Thermal Resistance(Typical) | $R_{\theta J-c}$ | $^\circ\text{C}/\text{W}$ | 结和壳之间<br>Between junction and case        | 2.0                                               |

## ■备注 NOTE

- ①Meets the requirements of IEC 61215 Ed. 2 bypass diode thermal test.

## ■外形尺寸和印记 Outline Dimensions and Mark



## ■ 特性曲线 (典型) Characteristics(Typical)

图1: 正向电流降额曲线

FIG1: IF (AV) --Tc Derating

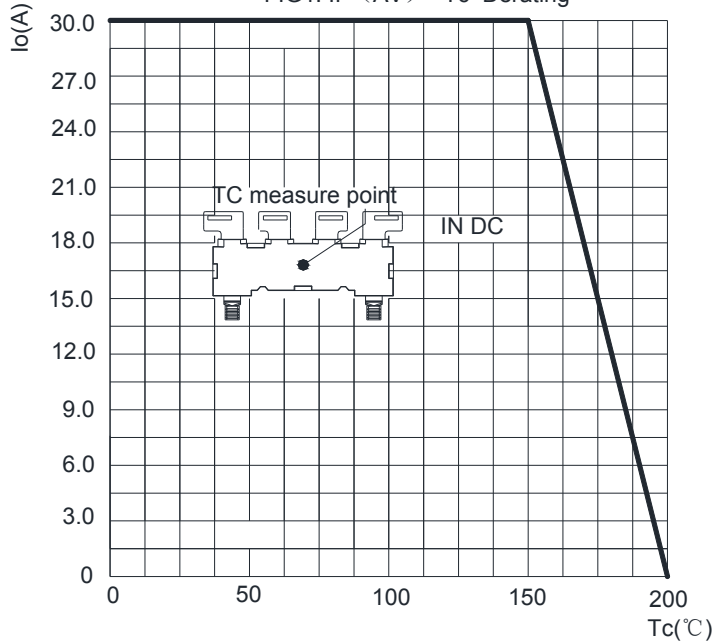


图2: 耐正向浪涌电流曲线

FIG2: Surge Forward Current Capability

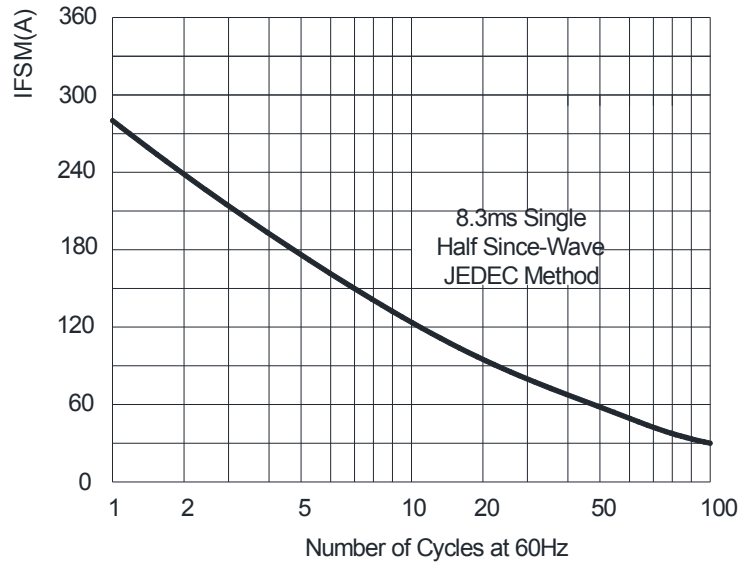


图3: 正向电压曲线

FIG3: Instantaneous Forward Voltage

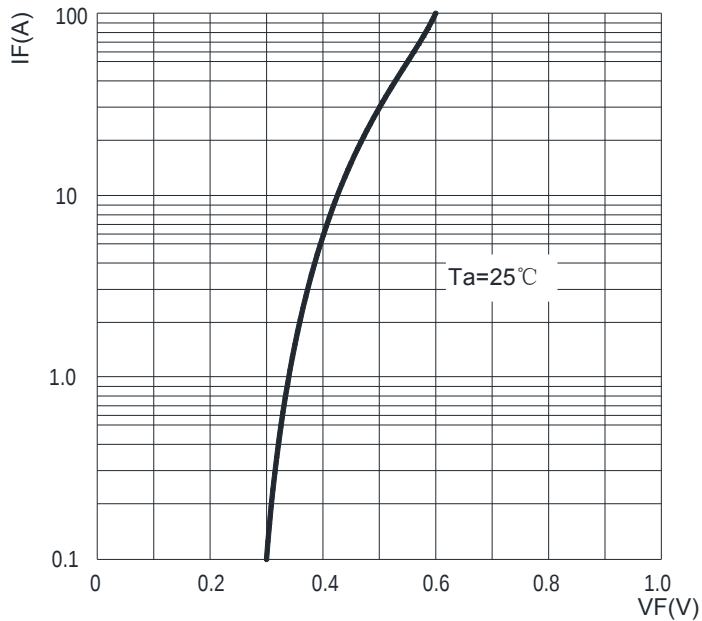


图4: 反向电流曲线

FIG4: Instantaneous Reverse Characteristics

