

客户 (CUSTOMER): 珠海格力电器股份有限公司 (GREE)

物料型号及编码 (MODEL): 快恢复二极管 2A/200V 35030377

规格书名称和版本号 (NAME AND VERSION No.): _____

E2DF-F1-S6688HF 技术规格书 REV.2.6

客户确认 (CUSTOMER CONFIRMATION)

审核 (CHECKED BY): _____

批准 (APPROVED BY): _____

供方确认 (SUPPLIER CONFIRMATION)

编制 (COMPILED BY): 易青

审核 (CHECKED BY): 朱菊萍

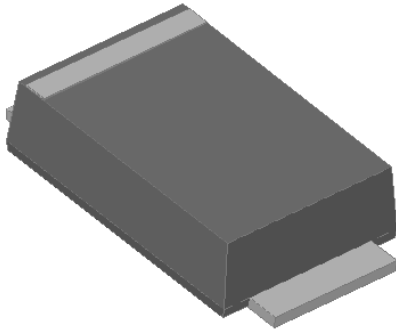
批准 (APPROVED BY): 王启源

供方 (SUPPLIER): 深圳市华瑞士科技有限公司



供方承诺: 以上资料版本更新, 必须第一时间和客户重新确认。

Surface Mount Super Fast Recovery Rectifier

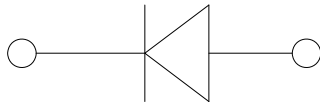


Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Super Fast reverse recovery time
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

For use in high frequency rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.



Mechanical Data

- **Package:** SMAF
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | E2DF-F1-S6688HF |
|---|------------------|------------------|-----------------|
| Device marking code | | | E2DF |
| Maximum Repetitive Peak Reverse Voltage | VRRM | V | 200 |
| Maximum RMS Voltage | VRMS | V | 140 |
| Maximum DC blocking Voltage | VDC | V | 200 |
| Average rectified output current @60Hz sine wave, resistance load, TL (Fig.1) | I _o | A | 2.0 |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _j =25°C | I _{FSM} | A | 50 |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _j =25°C | | | 100 |
| Current squared time @1ms≤t≤8.3ms T _j =25°C | I ² t | A ² s | 10.375 |
| Storage temperature | T _{stg} | °C | -55 ~ +150 |
| Junction temperature | T _j | °C | -55 ~ +150 |



E2DF-F1-S6688HF

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | E2DF-F1-S6688HF |
|---|-----------------|------|--|-----------------|
| Maximum instantaneous forward voltage | V _F | V | I _{FM} =2.0A | 1.0 |
| Maximum reverse recovery time | t _{rr} | ns | I _F =0.5A, I _R =1.0A, I _{rr} =0.25A | 35 |
| Maximum DC reverse current at rated DC blocking voltage | I _R | μA | T _j =25°C | 5.0 |
| | | | T _j =125°C | 100 |
| Typical junction capacitance | C _j | pF | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 30 |

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | E2DF-F1-S6688HF |
|----------------------------|----------------------------------|------|-----------------|
| Typical Thermal resistance | R _{θJ-A} ⁽¹⁾ | °C/W | 75 |
| | R _{θJ-L} ⁽¹⁾ | | 25 |
| | R _{θJ-C} ⁽¹⁾ | | 20 |

Note:
 (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

■ Characteristics (Typical)

FIG1: I_o-T_L Curve

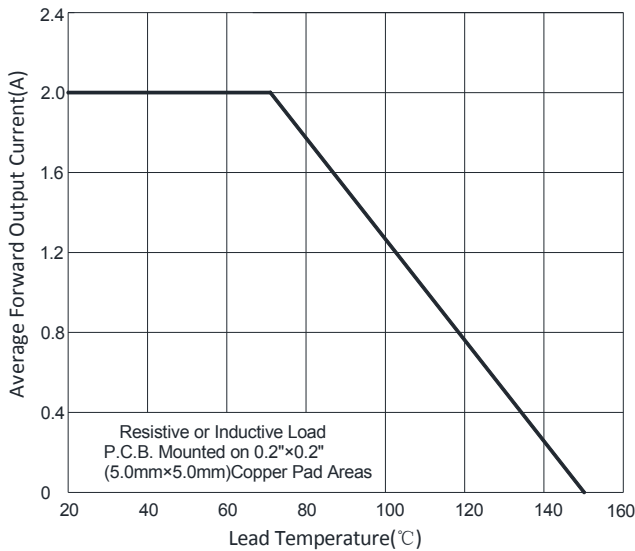
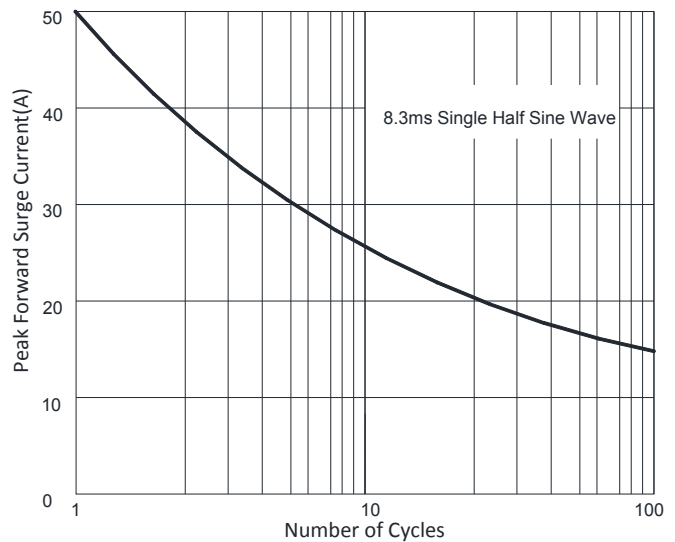


FIG2: Surge Forward Current Capability





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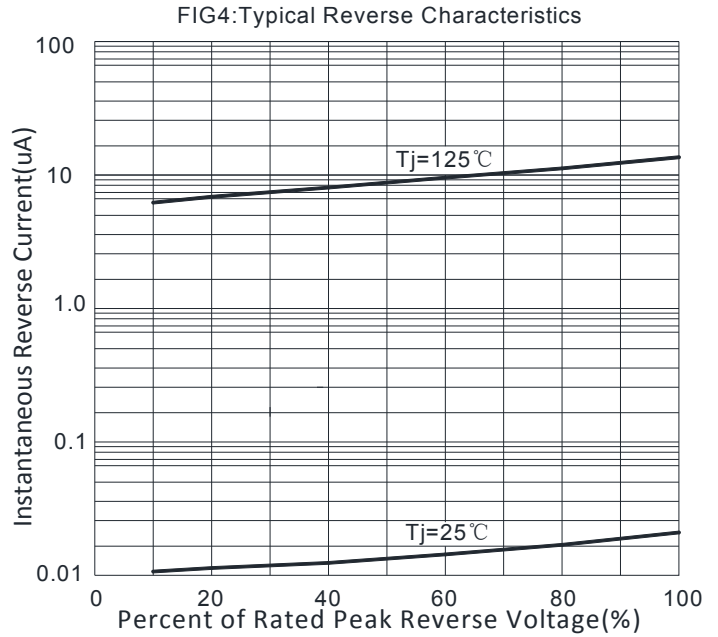
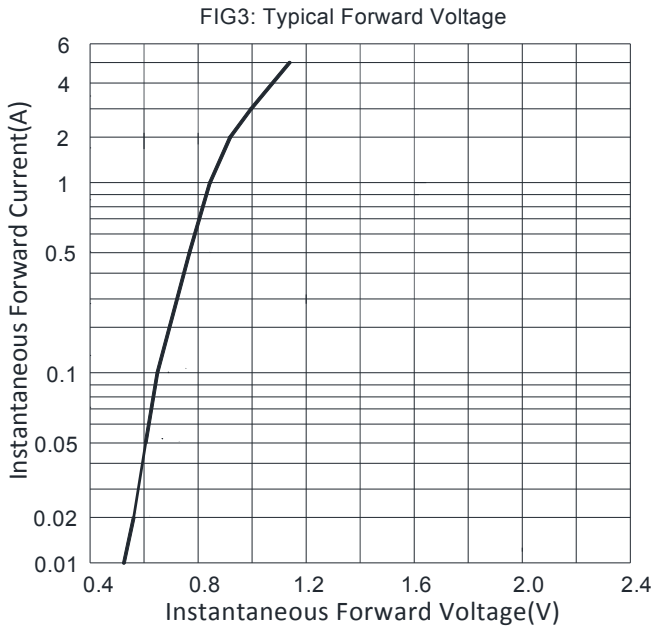
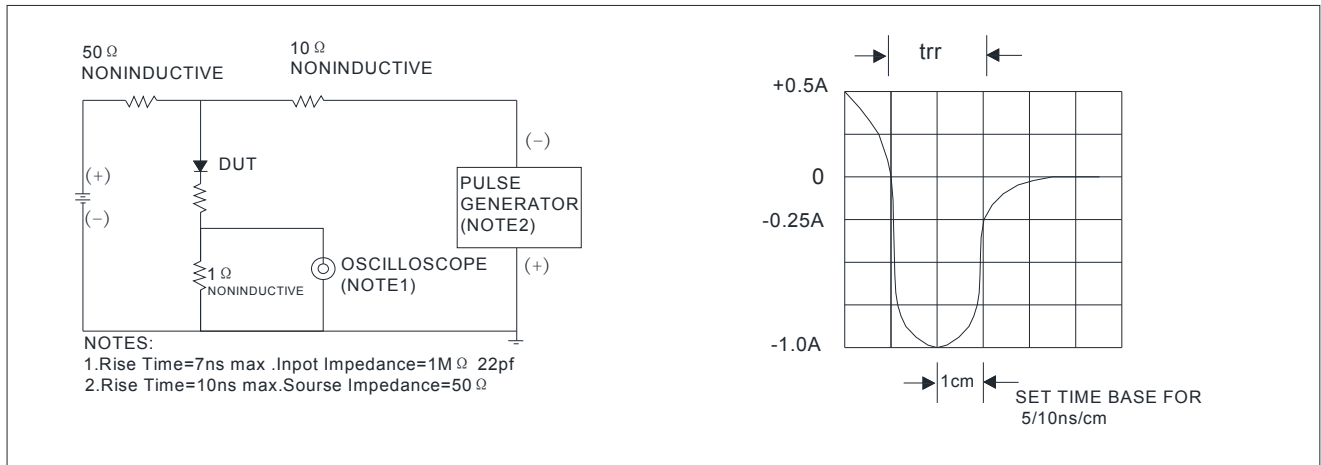


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

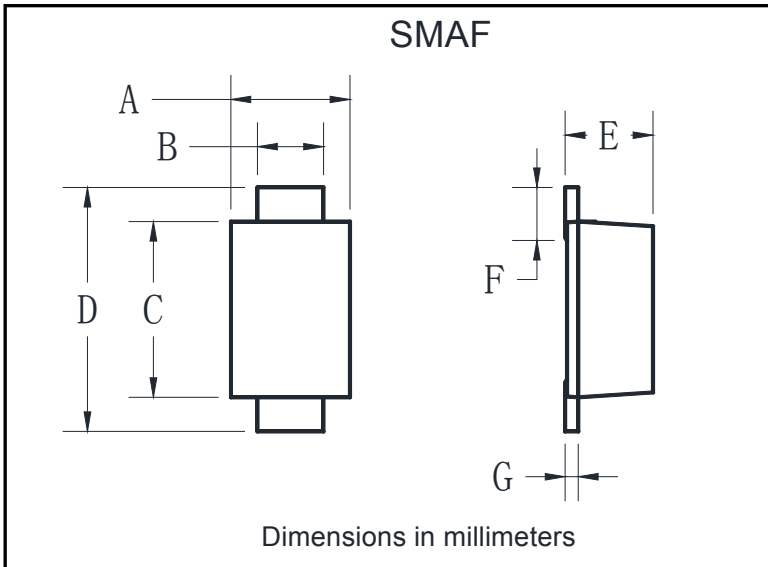


Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|-----------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| E2DF-F1-S6688HF | F1 | Approximate 0.034 | 3000 | 24000 | 96000 | 7" reel |

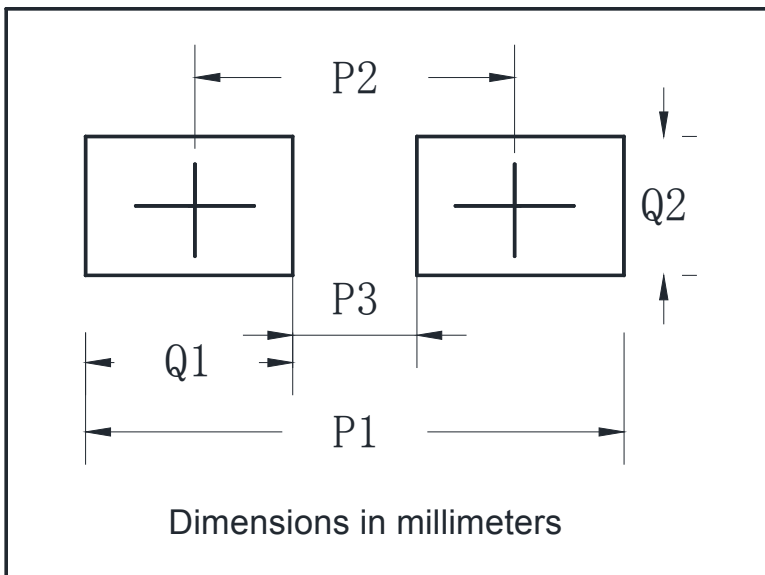


■ Outline Dimensions



| SMAF | | |
|------|------|------|
| Dim | Min | Max |
| A | 2.40 | 2.80 |
| B | 1.35 | 1.45 |
| C | 3.40 | 3.60 |
| D | 4.40 | 4.80 |
| E | 1.05 | 1.25 |
| F | 0.50 | 1.00 |
| G | 0.15 | 0.22 |

■ Suggested pad layout



| SMAF | |
|------|-------------|
| Dim | Millimeters |
| P1 | 6.50 |
| P2 | 4.00 |
| P3 | 1.50 |
| Q1 | 2.50 |
| Q2 | 1.70 |



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