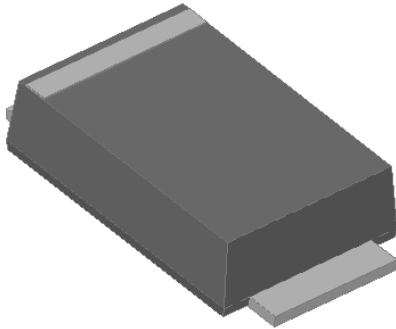


Surface Mount General Purpose Rectifier

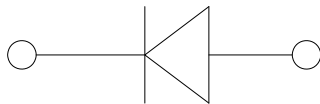


Features

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

Typical Applications

For use in general purpose 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 | G2AF | G2BF | G2DF | G2GF | G2JF | G2KF | G2MF |
|-----------------------------------------------------------------------------------------|------------------|------|----------|------|------|------|------|------|------|
| Device marking code | | | G2AF | G2BF | G2DF | G2GF | G2JF | G2KF | G2MF |
| Repetitive peak reverse voltage | VRRM | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average rectified output current @60Hz sine wave, resistance load, TL (Fig.1) | I _O | A | 2.0 | | | | | | |
| Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, T _a =25°C | I _{FSM} | A | 50 | | | | | | |
| Storage temperature | T _{stg} | °C | -55~+150 | | | | | | |
| Junction temperature | T _j | °C | -55~+150 | | | | | | |

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

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | G2AF | G2BF | G2DF | G2GF | G2JF | G2KF | G2MF |
|------------------------------------------------------------------------------|------------------|------|-----------------------|------|------|------|------|------|------|------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | I _{FM} =2.0A | 1.1 | | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM | I _{RRM} | μA | T _a =25°C | 5.0 | | | | | | |
| | | | T _a =125°C | 100 | | | | | | |



G2AF THRU G2MF

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

| PARAMETER | SYMBOL | UNIT | G2AF | G2BF | G2DF | G2GF | G2JF | G2KF | G2MF |
|----------------------------|----------------------------------|------|-------------------|------|------|------|------|------|------|
| Typical Thermal Resistance | R _{θJ-A} ⁽¹⁾ | °C/W | 60 ⁽¹⁾ | | | | | | |
| | R _{θJ-L} ⁽¹⁾ | | 20 ⁽¹⁾ | | | | | | |

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

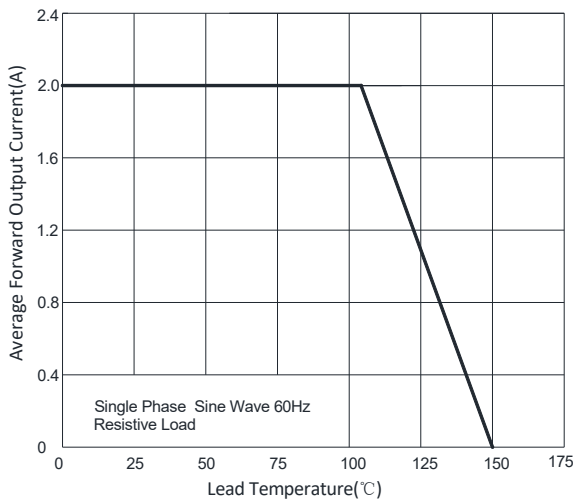


FIG2: Surge Forward Current Capability

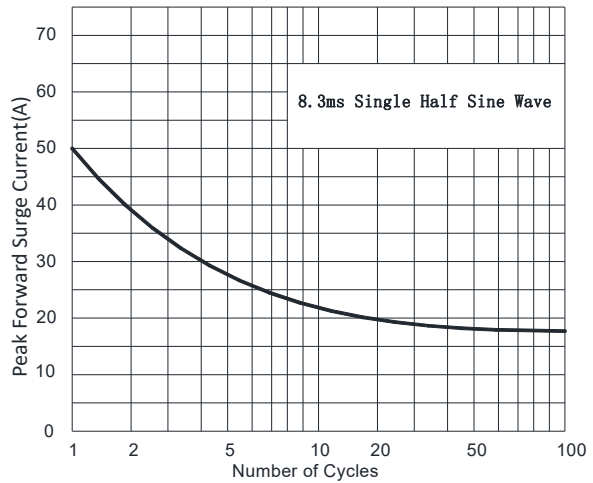


FIG3: Forward Voltage

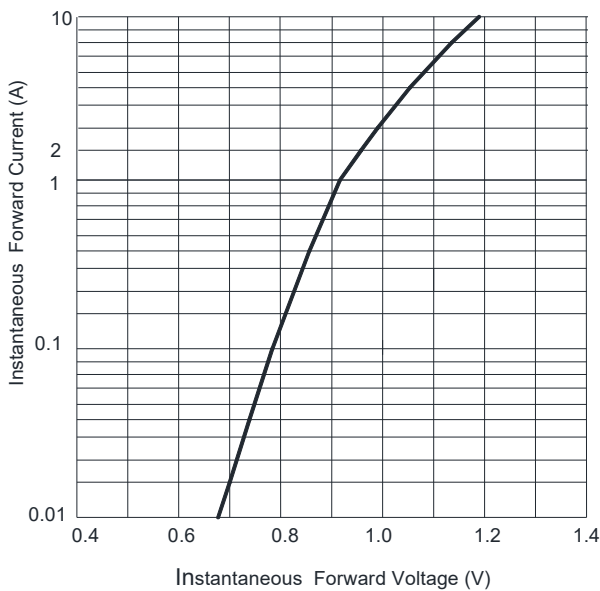
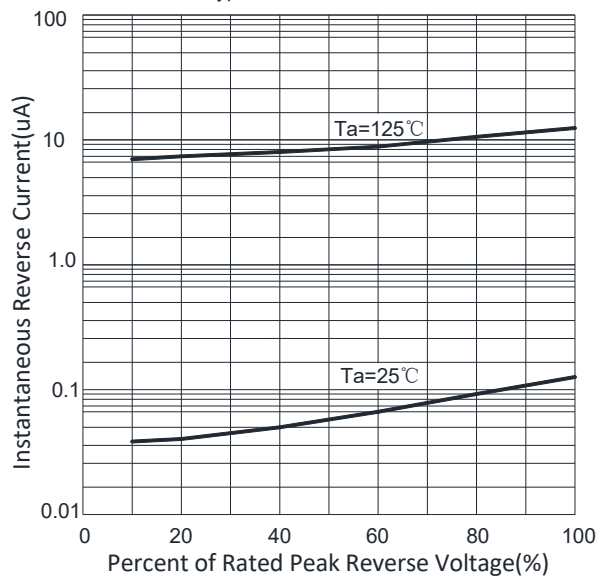


FIG4: Typical Reverse Characteristics



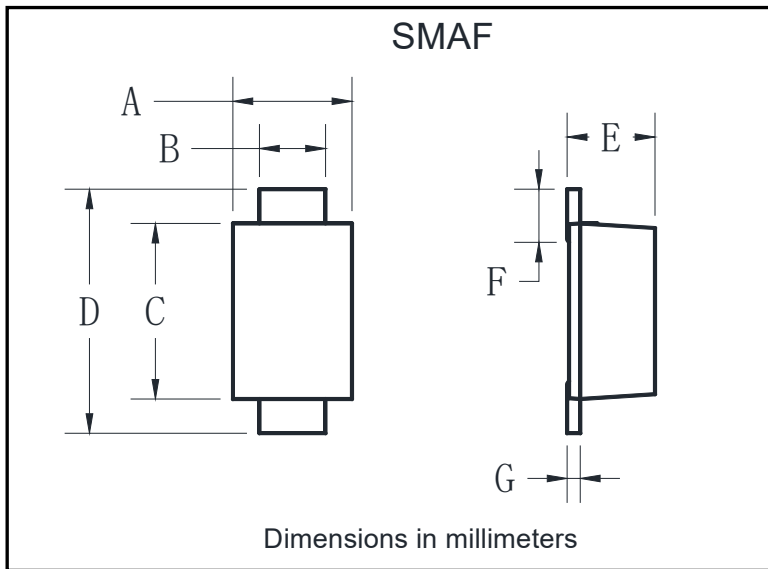


G2AF THRU G2MF

Ordering Information (Example)

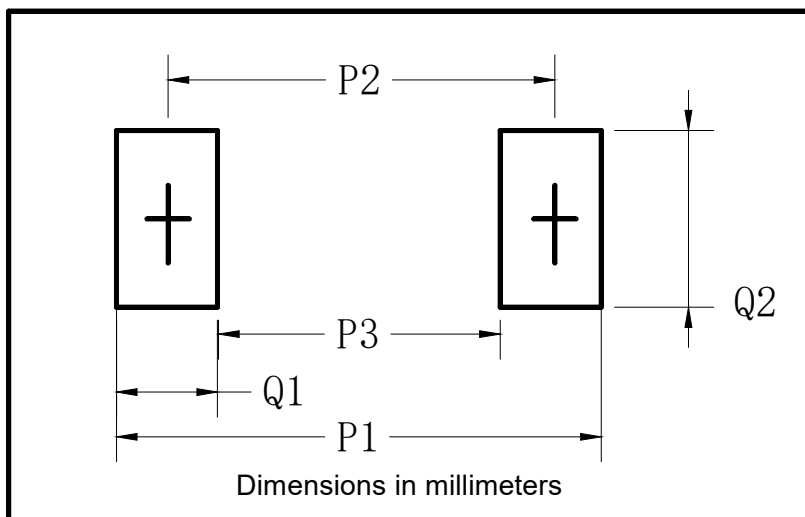
| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|--------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| G2AF-G2MF | F1 | Approximate 0.034 | 3000 | 12000 | 96000 | 7" reel |
| G2AF-G2MF | F2 | Approximate 0.034 | 10000 | 20000 | 160000 | 13" reel |
| G2AF-G2MF | F3 | Approximate 0.034 | 10000 | 20000 | 120000 | 13" reel |
| G2AF-G2MF | F4 | Approximate 0.034 | 7500 | 15000 | 120000 | 13" 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 |



G2AF THRU G2MF

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