



SBM34AVAFC-AU

Surface Mount Extreme Low Vf Schottky Barrier Rectifier

Voltage 45 V **Current** 3 A

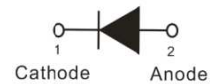
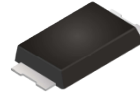
Features

- Extreme low forward voltage drop
- Low power loss, high efficiency
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : SMAF-C plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0012 ounces, 0.034 grams

SMAF-C



Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

| PARAMETER | SYMBOL | LIMIT | UNITS |
|--|--------------------|---------|-------|
| Maximum Repetitive Peak Reverse Voltage | V _{RRM} | 45 | V |
| Maximum Rms Voltage | V _{RMS} | 32 | V |
| Maximum Dc Blocking Voltage | V _{DC} | 45 | V |
| Maximum Average Forward Current | I _{F(AV)} | 3 | A |
| Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load | I _{FSM} | 80 | A |
| Typical Junction Capacitance Measured at 1 MHz And Applied V _R = 4 V | C _J | 220 | pF |
| Typical Thermal Resistance (Note 1) | R _{θJA} | 150 | °C/W |
| (Note 2) | R _{θJC} | 20 | |
| Operating Junction Temperature Range | T _J | -55~150 | °C |
| Storage Temperature Range | T _{STG} | -55~150 | °C |



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Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

| PARAMETER | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNITS |
|-------------------------------------|--------|--|------|------|------|---------------|
| Forward Voltage | V_F | $I_F = 1\text{ A}, T_J = 25^\circ\text{C}$ | - | 0.34 | - | V |
| | | $I_F = 3\text{ A}, T_J = 25^\circ\text{C}$ | - | - | 0.47 | |
| | | $I_F = 1\text{ A}, T_J = 125^\circ\text{C}$ | - | 0.26 | - | |
| | | $I_F = 3\text{ A}, T_J = 125^\circ\text{C}$ | - | 0.39 | - | |
| Reverse Current ^(Note 3) | I_R | $V_R = 36\text{ V}, T_J = 25^\circ\text{C}$ | - | 20 | - | μA |
| | | $V_R = 45\text{ V}, T_J = 25^\circ\text{C}$ | - | - | 210 | |
| | | $V_R = 45\text{ V}, T_J = 125^\circ\text{C}$ | - | 7 | - | mA |

NOTES:

1. Mounted on a FR4 PCB, single-sided copper, standard footprint
2. Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area
3. Short duration pulse test used to minimize self-heating effect



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TYPICAL CHARACTERISTIC CURVES

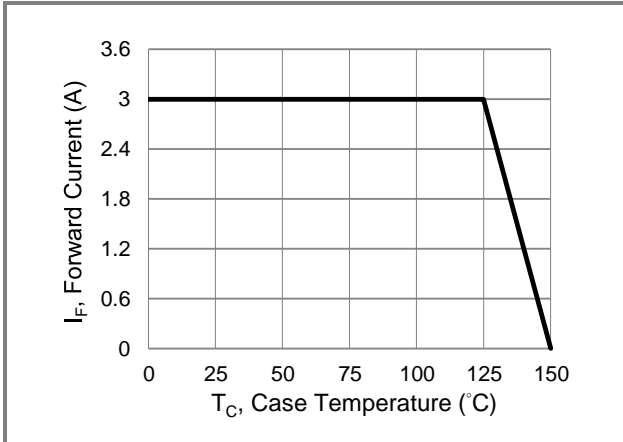


Fig.1 Forward Current Derating Curve

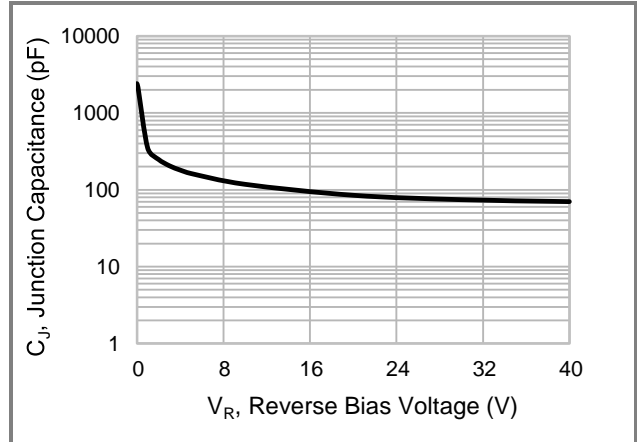


Fig.2 Typical Junction Capacitance

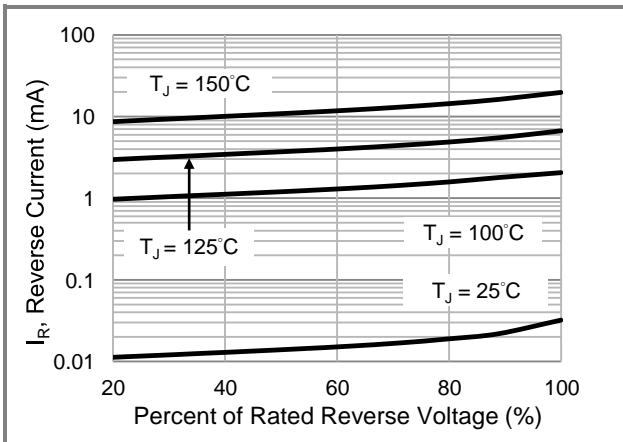


Fig.3 Typical Reverse Characteristics

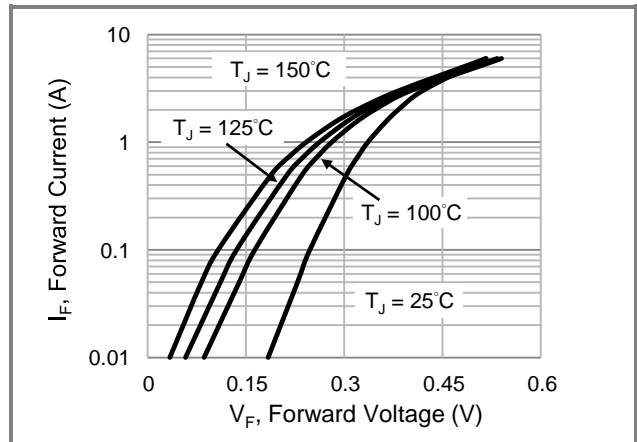


Fig.4 Typical Forward Characteristics

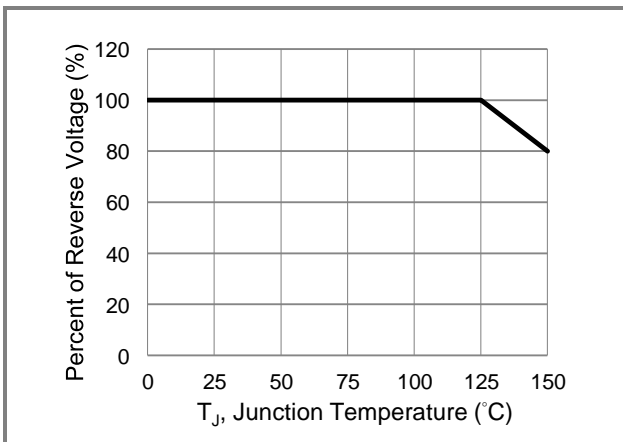


Fig.5 Operating Temperature Derating Curve

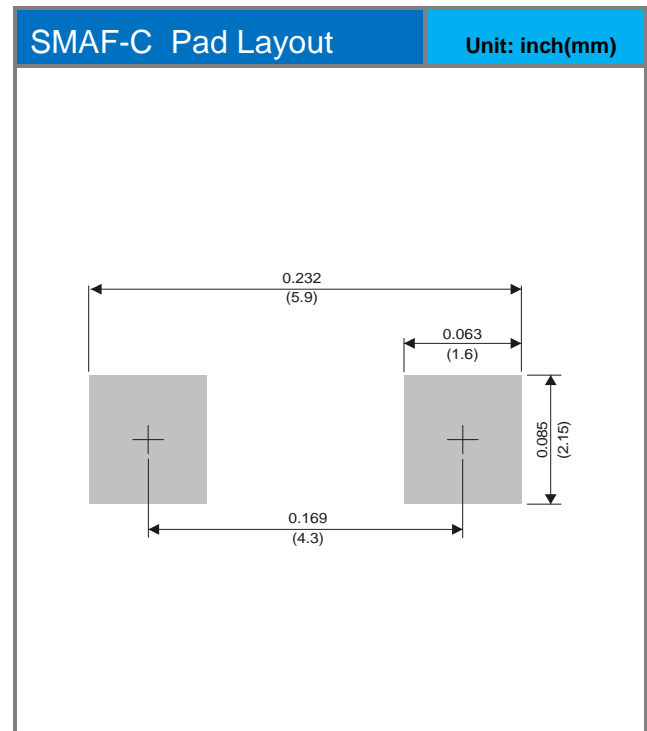
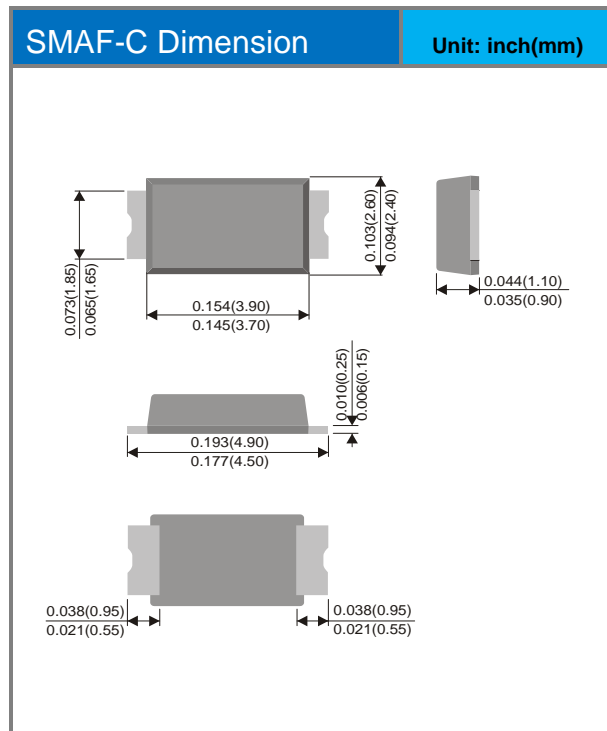


SBM34AV AFC-AU

Part No. Packing Code Version

| Part No. Packing Code | Package Type | Packing Type | Marking | Version |
|-------------------------|--------------|--------------|---------|--------------|
| SBM34AV AFC-AU_R1_000A1 | SMAF-C | 3K / 7" Reel | SBM34AV | Halogen free |

Packaging Information & Mounting Pad Layout





SBM34AV AFC-AU

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