



SBM260VAL-AU

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

| | | | |
|----------------|-------------|----------------|------------|
| Voltage | 60 V | Current | 2 A |
|----------------|-------------|----------------|------------|

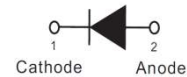
Features

- Low forward voltage drop
- Deal for automated placement
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

Mechanical Data

- Case: SOD-123FL Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0006 ounces, 0.017 grams

SOD-123FL



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

| PARAMETER | SYMBOL | LIMIT | UNITS |
|--|---------------------------------|---------|-------|
| Maximum Repetitive Peak Reverse Voltage | V _{RRM} | 60 | V |
| Maximum Rms Voltage | V _{RMS} | 42 | V |
| Maximum Dc Blocking Voltage | V _{DC} | 60 | V |
| Maximum Average Forward Current | I _{F(AV)} | 2 | A |
| Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load | I _{FSM} | 50 | A |
| Typical Junction Capacitance Measured at 1 MHZ And Applied V _R = 4 V | C _J | 100 | pF |
| Typical Thermal Resistance | R _{θJA} ⁽¹⁾ | 200 | °C/W |
| | R _{θJC} ⁽²⁾ | 32 | |
| 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 | $I_F = 0.5\text{ A}, T_J = 25^\circ\text{C}$ | - | 0.35 | - | V |
| | | $I_F = 2\text{ A}, T_J = 25^\circ\text{C}$ | - | - | 0.54 | |
| | | $I_F = 0.5\text{ A}, T_J = 125^\circ\text{C}$ | - | 0.28 | - | |
| | | $I_F = 2\text{ A}, T_J = 125^\circ\text{C}$ | - | 0.48 | - | |
| Reverse Current | $I_R^{(3)}$ | $V_R = 48\text{ V}, T_J = 25^\circ\text{C}$ | - | 6.6 | - | uA |
| | | $V_R = 60\text{ V}, T_J = 25^\circ\text{C}$ | - | - | 50 | |
| | | $V_R = 60\text{ V}, T_J = 125^\circ\text{C}$ | - | 3 | - | mA |

NOTES:

1. Mounted on a FR4 PCB, single-sided copper, mini pad.
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

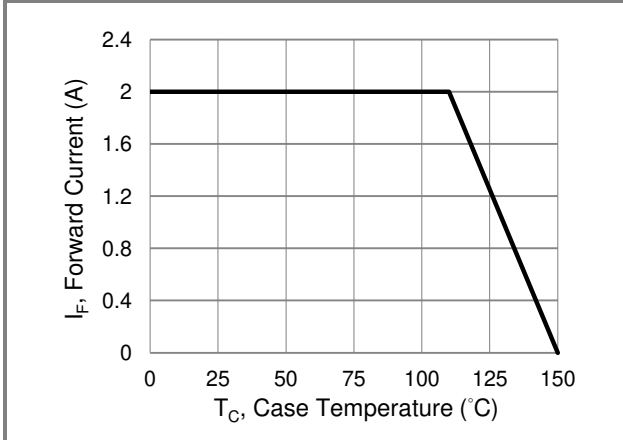


Fig.1 Forward Current Derating Curve

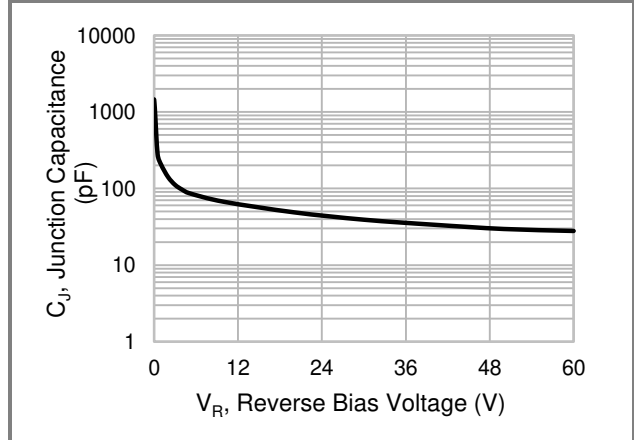


Fig.2 Typical Junction Capacitance

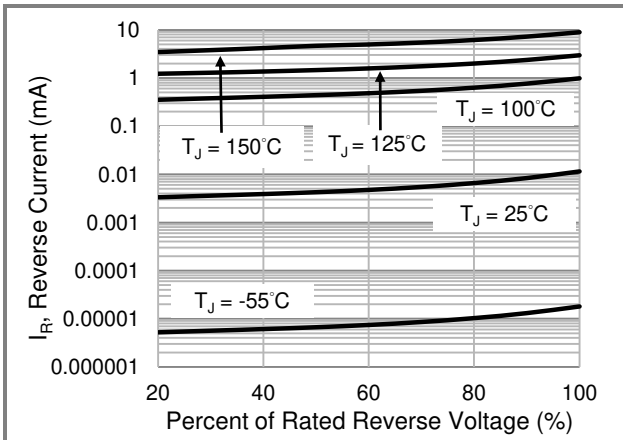


Fig.3 Typical Reverse Characteristics

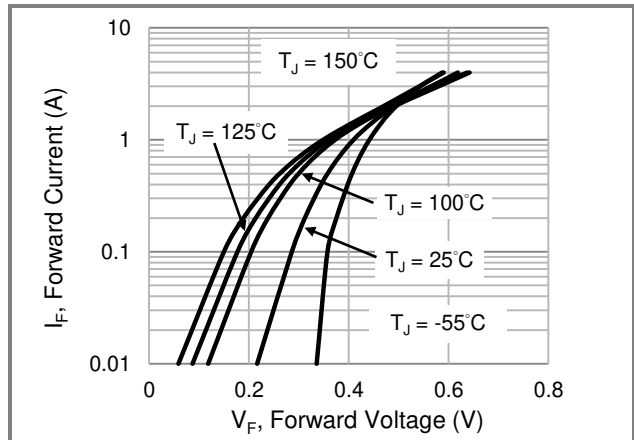


Fig.4 Typical Forward Characteristics

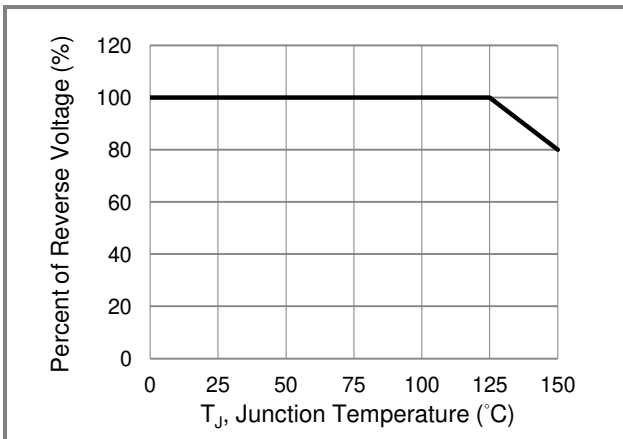


Fig.5 Operating Temperature Derating Curve

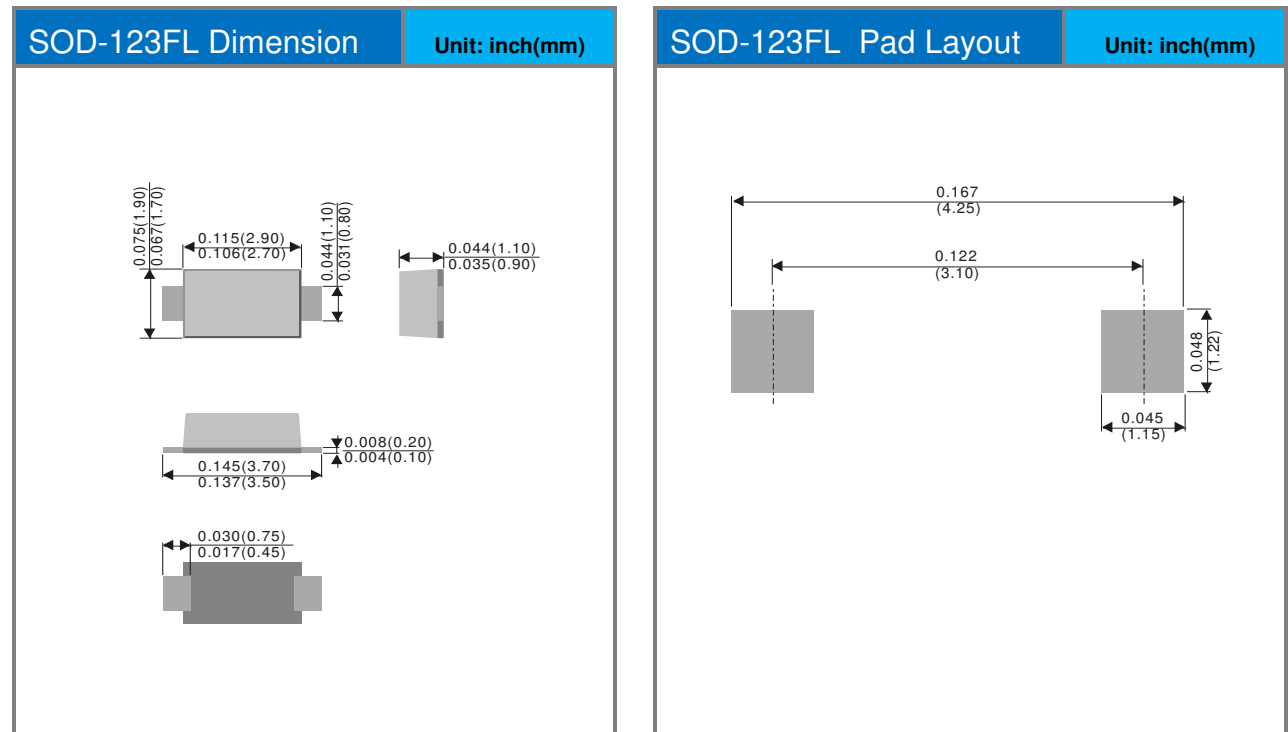


SBM260VAL-AU

Part No Packing Code Version

| Part No Packing Code | Package Type | Packing Type | Marking | Version |
|-----------------------|--------------|--------------|---------|--------------|
| SBM260VAL-AU_R1_000A1 | SOD-123FL | 3K / 7" Reel | 3VA | Halogen free |

Packaging Information & Mounting Pad Layout





SBM260VAL-AU

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