

SS16-AU

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Voltage

60 V

Current

1 A

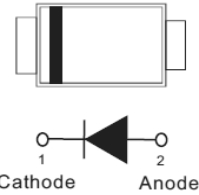
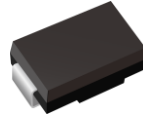
Features

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

Mechanical Data

- Case: JEDEC DO-214AC molded plastic
- Polarity: Color Band denotes cathode end
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0023 ounces, 0.0679 grams

SMA



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

| PARAMETER | SYMBOL | LIMIT | UNITS |
|--|---------------------------------|-------------|-------|
| Maximum Recurrent 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 Rectified Current | I _{F(AV)} | 1 | A |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load per diode | I _{FSM} | 30 | A |
| Typical Junction Capacitance Measured at 1 MHz And Applied V _R = 4V | C _J | 50 | pF |
| Typical Thermal Resistance per diode | R _{θJA} ⁽¹⁾ | 150 | °C/W |
| | R _{θJA} ⁽²⁾ | 88 | |
| | R _{θJL} ⁽²⁾ | 28 | |
| Operating Junction Temperature Range | T _J | -55 to +150 | °C |
| Storage Temperature Range | T _{STG} | -55 to +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 |
|-------------------------------|-------------|---|------|------|------|-------|
| Instantaneous forward voltage | V_F | $I_F = 0.5\text{ A}, T_J = 25^\circ\text{C}$ | - | 0.49 | - | V |
| | | $I_F = 1\text{ A}, T_J = 25^\circ\text{C}$ | - | - | 0.7 | |
| | | $I_F = 0.5\text{ A}, T_J = 125^\circ\text{C}$ | - | 0.45 | - | |
| | | $I_F = 1\text{ A}, T_J = 125^\circ\text{C}$ | - | 0.57 | - | |
| Reverse current | $I_R^{(3)}$ | $V_R = 48\text{ V}, T_J = 25^\circ\text{C}$ | - | 2.5 | - | uA |
| | | $V_R = 60\text{ V}, T_J = 25^\circ\text{C}$ | - | - | 100 | |
| | | $V_R = 60\text{ V}, T_J = 100^\circ\text{C}$ | - | - | 5 | mA |

NOTES:

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

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TYPICAL CHARACTERISTIC CURVES

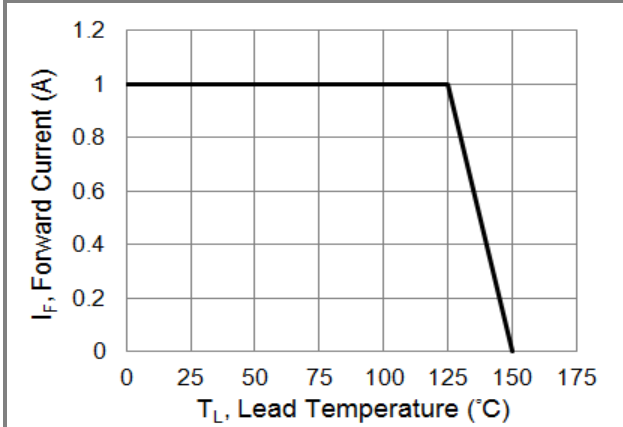


Fig.1 Forward Current Derating Curve

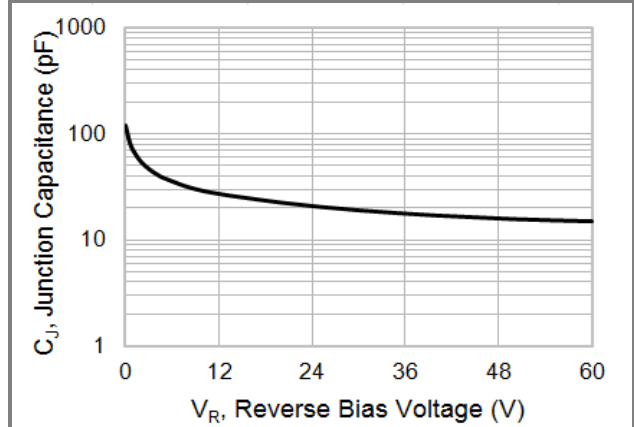


Fig.2 Typical Junction Capacitance

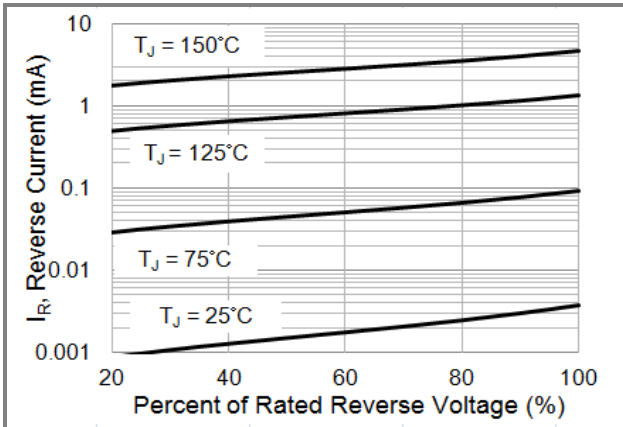


Fig.3 Typical Reverse Characteristics

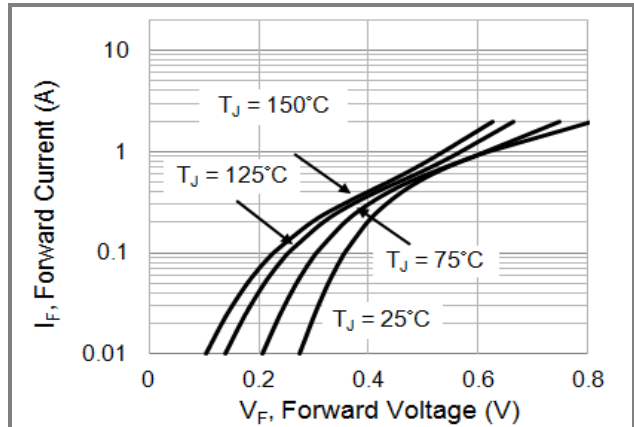


Fig.4 Typical Forward Characteristics

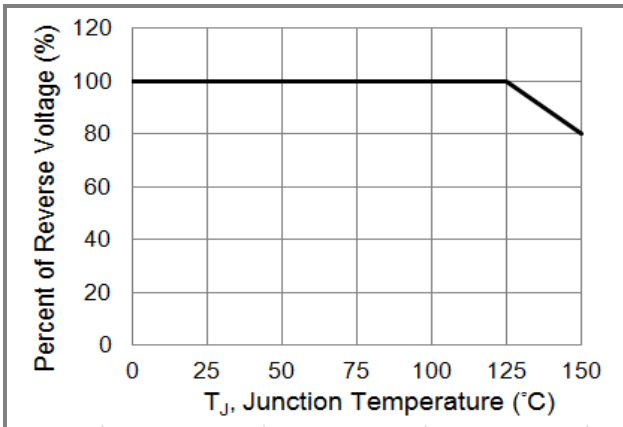


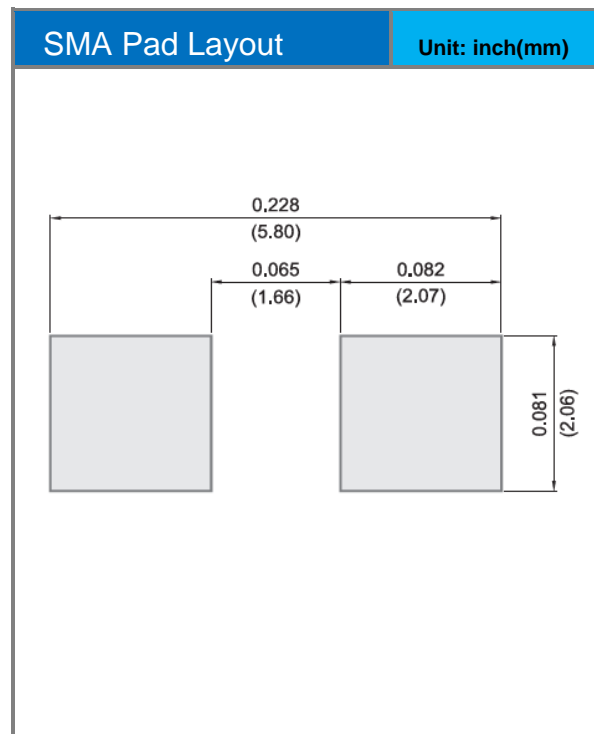
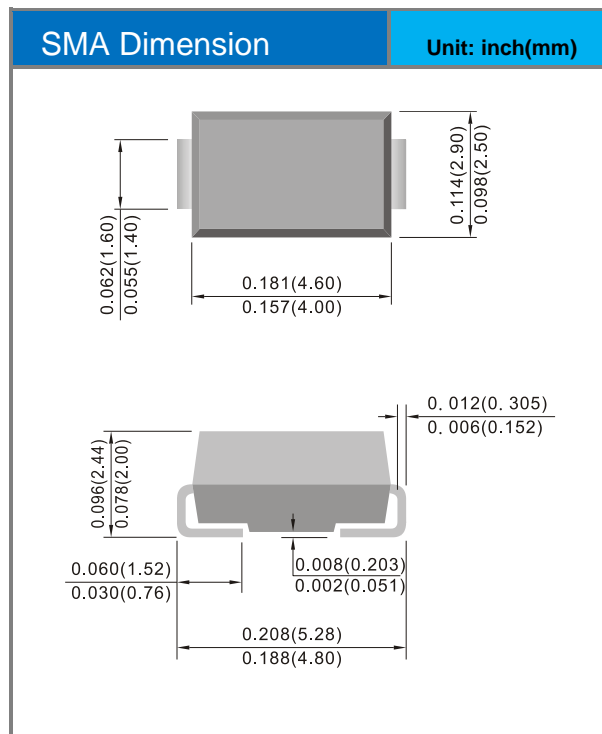
Fig.5 Operating Temperature Derating Curve

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Product and Packing Information

| Part No. | Package Type | Packing Type | Marking |
|----------|--------------|---------------------|---------|
| SS16-AU | SMA | 7500 pcs / 13" reel | SS16 |

Packaging Information & Mounting Pad Layout



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