

## SX34-AU

### SURFACE MOUNT LOW VF SCHOTTKY BARRIER RECTIFIER

**Voltage**

**40 V**

**Current**

**3 A**

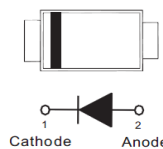
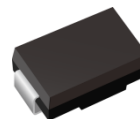
#### Features

- 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: SMA Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0024 ounces, 0.068 grams

SMA



### Maximum Ratings and Thermal Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

| PARAMETER                                                                           | SYMBOL                | LIMIT   | UNITS                       |
|-------------------------------------------------------------------------------------|-----------------------|---------|-----------------------------|
| Maximum Repetitive Peak Reverse Voltage                                             | $V_{RRM}$             | 40      | V                           |
| Maximum Rms Voltage                                                                 | $V_{RMS}$             | 28      | V                           |
| Maximum Dc Blocking Voltage                                                         | $V_{DC}$              | 40      | V                           |
| Maximum Average Forward Current                                                     | $I_{F(AV)}$           | 3       | A                           |
| Peak Forward Surge Current : 8.3ms Single Half Sine-Wave Superimposed On Rated Load | $I_{FSM}$             | 80      | A                           |
| Maximum Junction Capacitance<br>Measured at 1 MHZ And Applied $V_R = 4\text{ V}$    | $C_J$                 | 160     | pF                          |
| Typical Thermal Resistance                                                          | $R_{\theta JA}^{(1)}$ | 150     | $^{\circ}\text{C}/\text{W}$ |
|                                                                                     | $R_{\theta JC}^{(2)}$ | 20      |                             |
| Operating Junction Temperature Range                                                | $T_J$                 | -55~150 | $^{\circ}\text{C}$          |
| Storage Temperature Range                                                           | $T_{STG}$             | -55~150 | $^{\circ}\text{C}$          |



## SX34-AU

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

| PARAMETER       | SYMBOL      | TEST CONDITION                                 | MIN. | TYP. | MAX. | UNITS |
|-----------------|-------------|------------------------------------------------|------|------|------|-------|
| Forward Voltage | $V_F$       | $I_F = 1\text{ A}, T_J = 25^{\circ}\text{C}$   | -    | 0.39 | -    | V     |
|                 |             | $I_F = 3\text{ A}, T_J = 25^{\circ}\text{C}$   | -    | -    | 0.5  |       |
|                 |             | $I_F = 1\text{ A}, T_J = 125^{\circ}\text{C}$  | -    | 0.28 | -    |       |
|                 |             | $I_F = 3\text{ A}, T_J = 125^{\circ}\text{C}$  | -    | 0.42 | -    |       |
| Reverse Current | $I_R^{(3)}$ | $V_R = 32\text{ V}, T_J = 25^{\circ}\text{C}$  | -    | 12   | -    | uA    |
|                 |             | $V_R = 40\text{ V}, T_J = 25^{\circ}\text{C}$  | -    | -    | 200  |       |
|                 |             | $V_R = 40\text{ V}, T_J = 125^{\circ}\text{C}$ | -    | 9    | -    | mA    |

#### NOTES:

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

## SX34-AU

### TYPICAL CHARACTERISTIC CURVES

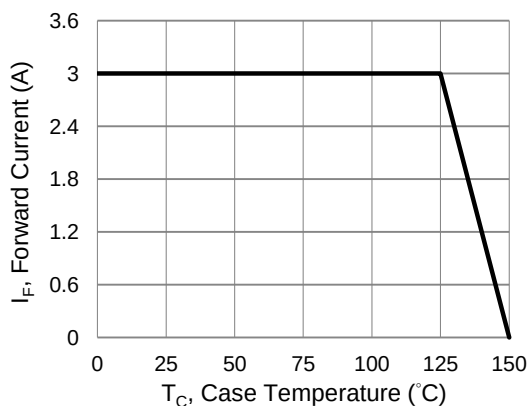


Fig.1 Forward Current Derating Curve

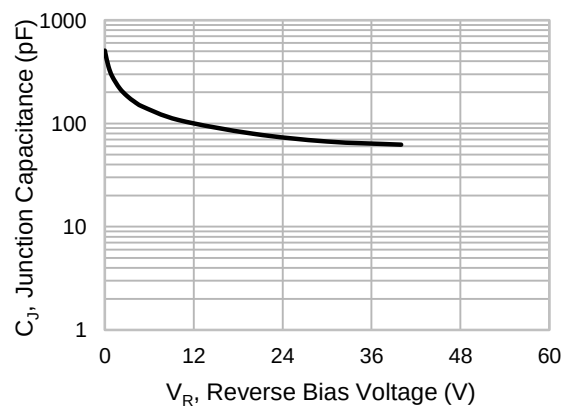


Fig.2 Typical Junction Capacitance

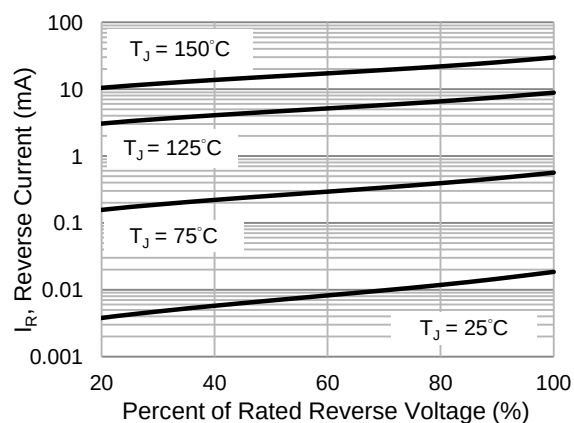


Fig.3 Typical Reverse Characteristics

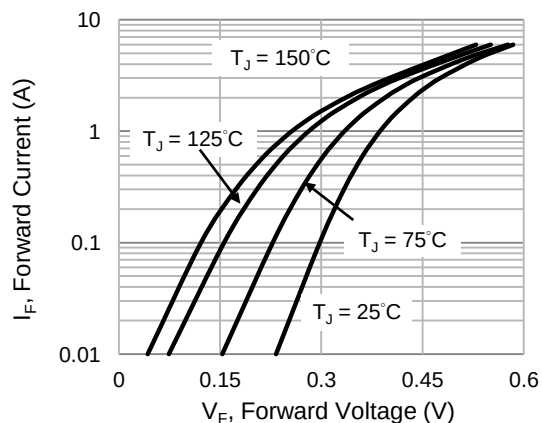


Fig.4 Typical Forward Characteristics

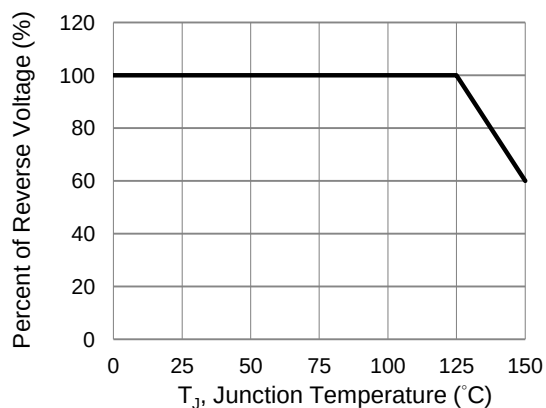


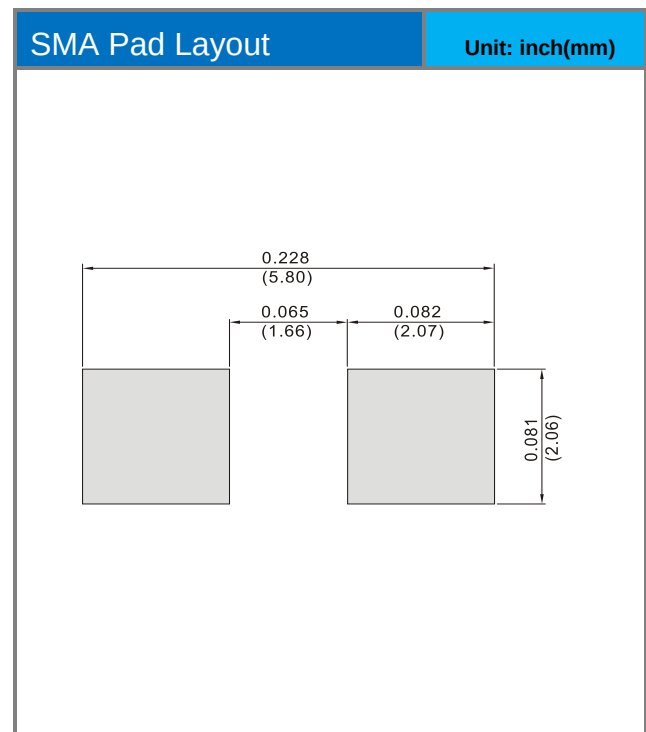
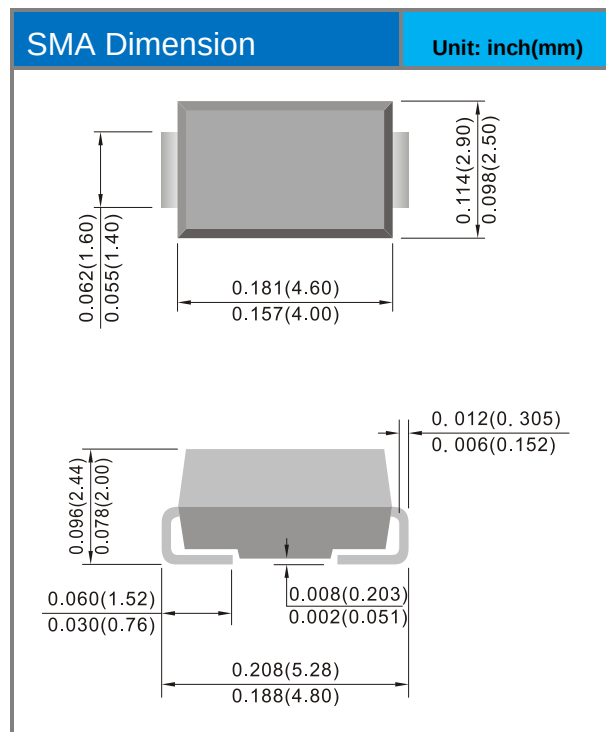
Fig.5 Operating Temperature Derating Curve

## SX34-AU

### Part No Packing Code Version

| Part No Packing Code | Package Type | Packing Type        | Marking | Version      |
|----------------------|--------------|---------------------|---------|--------------|
| SX34-AU_R2_000A1     | SMA          | 7.5K pcs / 13" reel | SX34    | Halogen free |

### Packaging Information & Mounting Pad Layout





## SX34-AU

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