

SR34LF

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

Voltage

40 V

Current

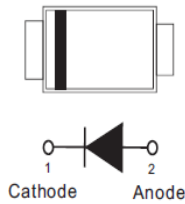
3 A

Features

- Ideal for automated placement
- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Low thermal resistance
- Ultra thin profile package for space constrained utilization
- Easy pick and place package suitable for automated handling
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

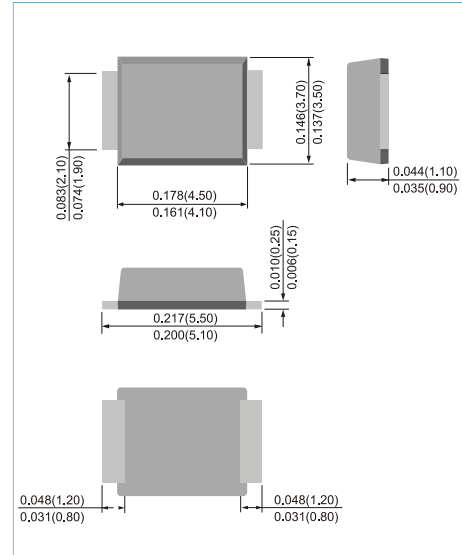
Mechanical Data

- Case: SMBF package
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Weight: 0.002 ounces, 0.05 grams.
- Marking: Part number



SMBF

Unit : inch(mm)



Maximum Ratings And Electrical Characteristics (T_A=25°C unless otherwise noted)

| PARAMETER | SYMBOL | LIMIT | UNIT |
|---|---------------------------|-------------|------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 40 | V |
| Maximum rms voltage | V _{RMS} | 28 | V |
| Storage temperature range | V _R | 40 | V |
| Maximum average forward rectified current | I _{F(AV)} | 3 | A |
| Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 100 | A |
| Typical junction capacitance (V _R =4V, f=1MHz) | C _J | 235 | pF |
| Typical thermal resistance | (Note 1) R _{θJL} | 17 | °C/W |
| | (Note 2) R _{θJA} | 135 | |
| Operating junction temperature range | T _J | -55 to +150 | °C |
| Storage temperature range | T _{STG} | -55 to +150 | °C |

Note : 1. Mounted on a FR4 PCB, single-sided copper, with 48cm² copper pad area.

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

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

| PARAMETER | SYMBOL | TEST CONDITION | | MIN. | TYP. | MAX. | UNITS |
|-------------------------------|----------|--------------------|---|--------|---------|----------|---------------------|
| Breakdown voltage | V_{BR} | $I_R=0.5\text{mA}$ | $T_J=25^{\circ}\text{C}$ | 40 | - | - | V |
| Instantaneous forward voltage | V_F | $I_F=1\text{A}$ | $T_J=25^{\circ}\text{C}$ | - | 0.37 | - | V |
| | | $I_F=3\text{A}$ | | - | 0.43 | 0.46 | |
| | | $I_F=1\text{A}$ | $T_J=125^{\circ}\text{C}$ | - | 0.24 | - | V |
| | | $I_F=3\text{A}$ | | - | 0.35 | - | |
| Reverse current | I_R | $V_R=32\text{V}$ | $T_J=25^{\circ}\text{C}$ | - | 15 | - | μA |
| | | $V_R=40\text{V}$ | $T_J=25^{\circ}\text{C}$ $T_J=125^{\circ}\text{C}$ | - - | - 16 | 100 - | μA mA |

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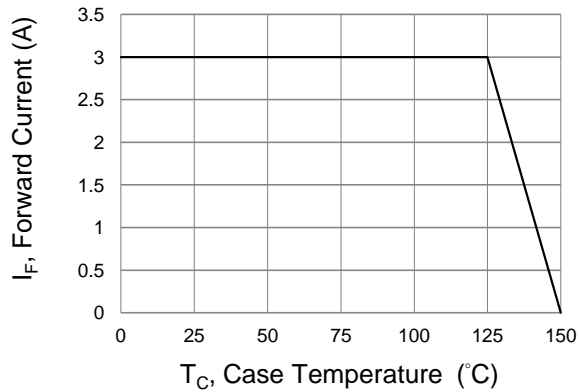


Fig.1 Forward Current Derating Curve

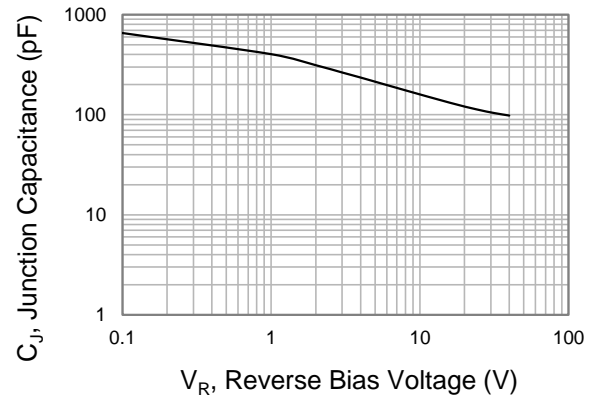


Fig.2 Typical Junction Capacitance

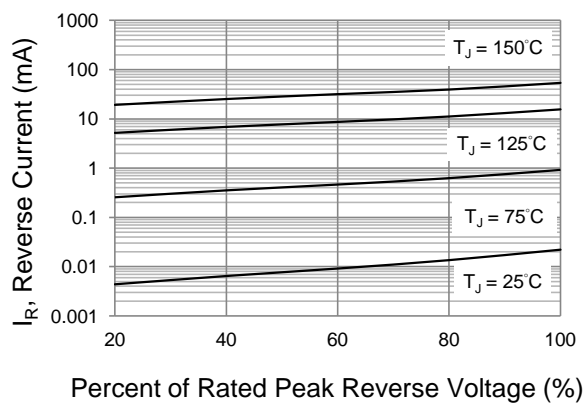


Fig.3 Typical Reverse Characteristics

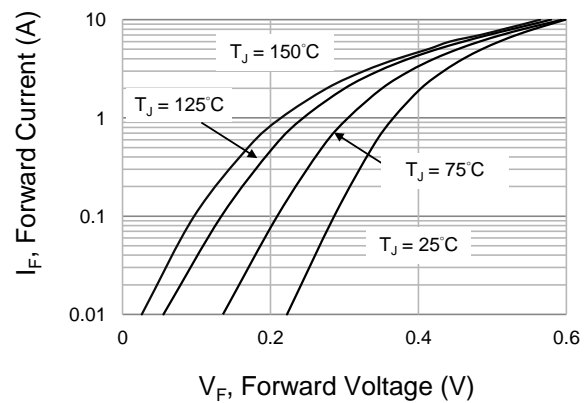


Fig.4 Typical Forward Characteristics

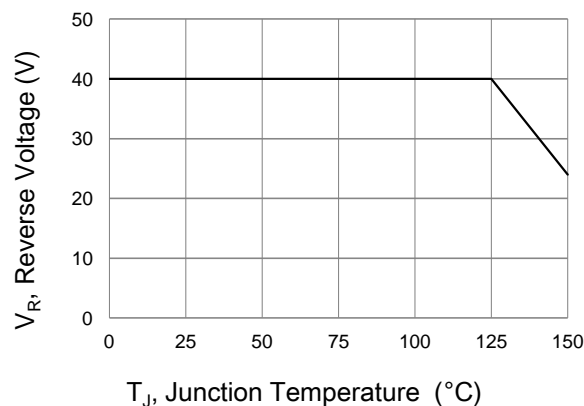


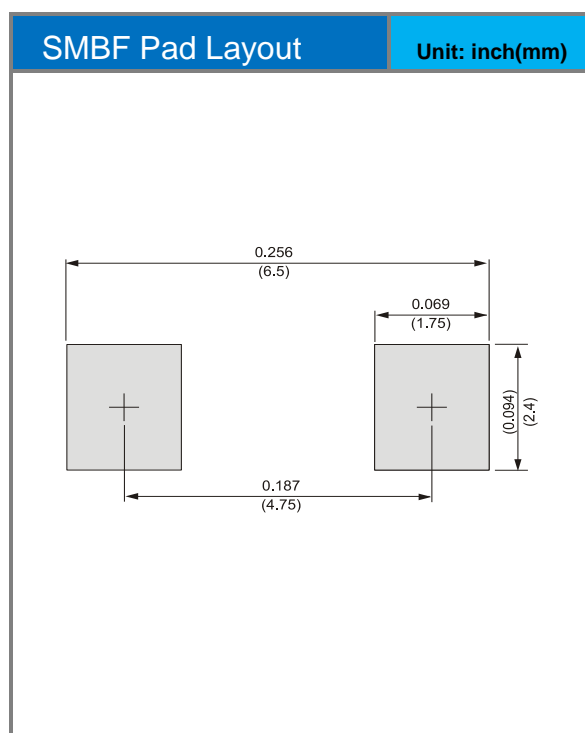
Fig.5 Operating Temperature Derating Curve

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Product and Packing Information

| Part No. | Package Type | Packing Type | Marking |
|----------|--------------|--------------------|---------|
| SR34LF | SMBF | 1.5K pcs / 7" reel | SR34LF |
| SR34LF | SMBF | 5K pcs / 13" reel | SR34LF |

Mounting Pad Layout



SR34LF

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