



SR34L

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

Voltage

40 V

Current

3 A

SMB / DO-214AA

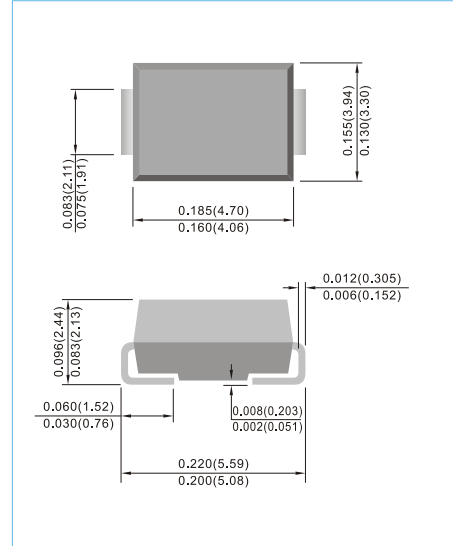
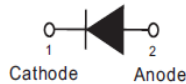
Unit : inch(mm)

Features

- Ideal for automated placement
- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Low thermal resistance
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: SMB package
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Weight: 0.003 ounces, 0.092 grams.
- Marking: Part number



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 |
| Maximum dc blocking voltage | 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 thermal resistance | (Note 1) R _{θJC} | 10 | °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 100cm² 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} | $I_R=1\text{mA}$ | $T_J=25^\circ\text{C}$ | 40 | - | - | V |
| Instantaneous forward voltage | V_F | $I_F=0.1\text{A}$ | $T_J=25^\circ\text{C}$ | - | 0.29 | - | V |
| | | $I_F=1.5\text{A}$ | | - | 0.39 | - | |
| | | $I_F=3\text{A}$ | | - | 0.44 | 0.47 | |
| | | $I_F=0.1\text{A}$ | $T_J=125^\circ\text{C}$ | - | 0.14 | - | V |
| | | $I_F=1.5\text{A}$ | | - | 0.28 | - | |
| Reverse current | I_R | $V_R=32\text{V}$ | $T_J=25^\circ\text{C}$ | - | 15 | - | μA |
| | | $V_R=40\text{V}$ | $T_J=25^\circ\text{C}$ | - | - | 100 | μA |
| | | | $T_J=125^\circ\text{C}$ | - | 15 | - | mA |

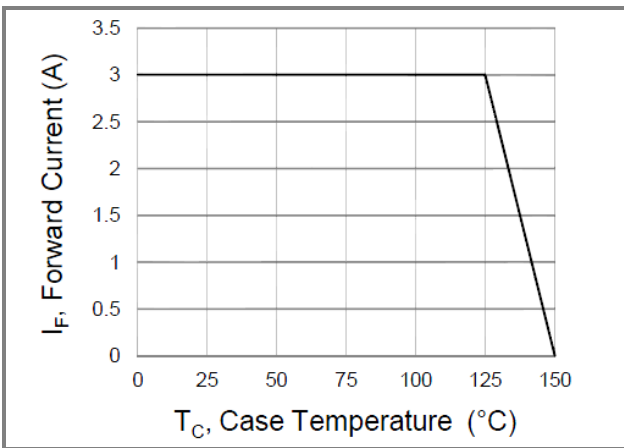


Fig.1 Forward Current Derating Curve

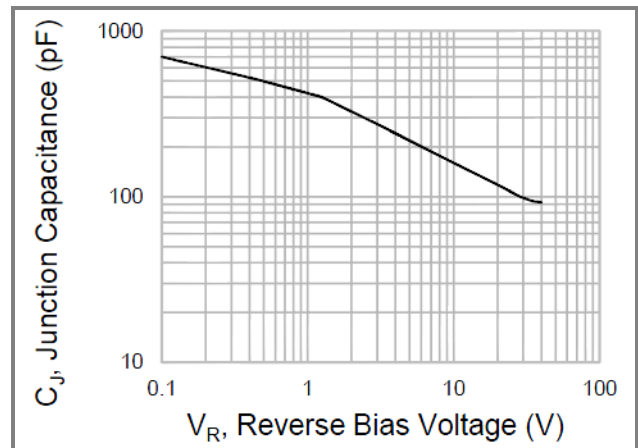


Fig.2 Typical Junction Capacitance

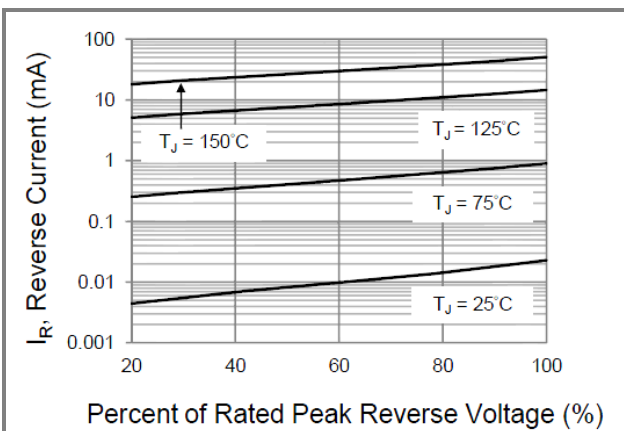


Fig.3 Typical Reverse Characteristics

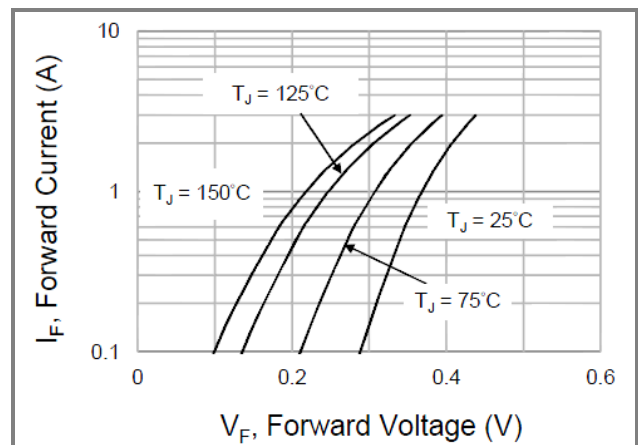
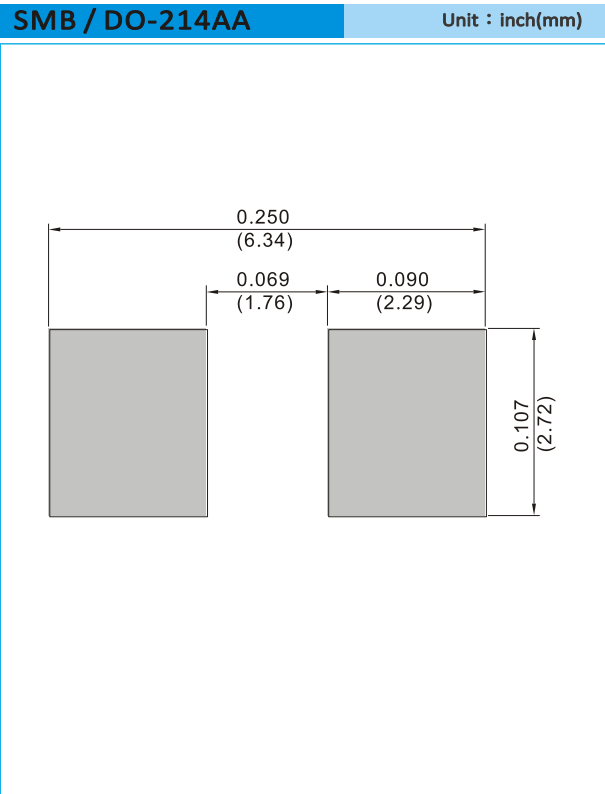


Fig.4 Typical Forward Characteristics



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R – 3K per 13" plastic Reel
T/R – 0.8K per 7" plastic Reel



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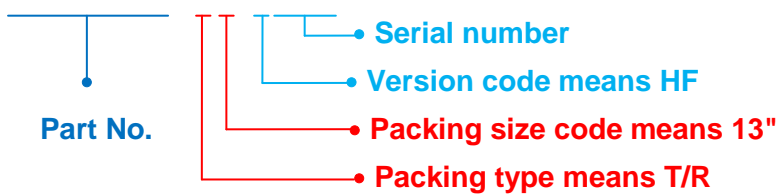
Part No_packing code_Version

SR34L_R1_00001

SR34L_R2_00001

For example :

RB500V-40_R2_00001



| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd -5 th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |



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