

SB3H60AF

SCHOTTKY RECTIFIER

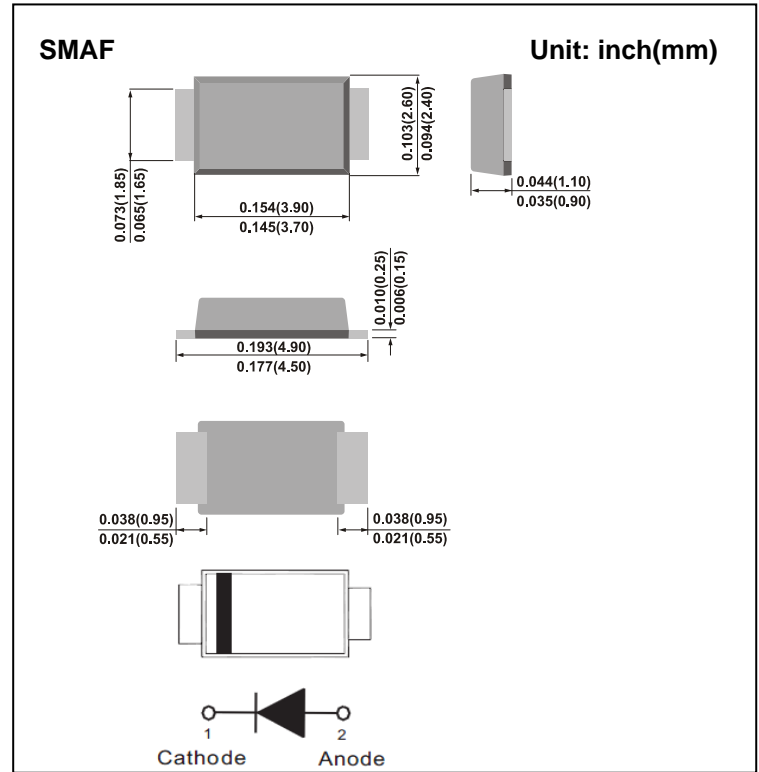
| | | | |
|----------------|-------------|----------------|------------|
| Voltage | 60 V | Current | 3 A |
|----------------|-------------|----------------|------------|

Features

- Surface mount package
- Ultra thin profile package for space constrained utilization
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

Mechanical Data

- Case: SMAF, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026



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

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|--------------------------|-------------|--------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 60 | V |
| Maximum rms voltage | V_{RMS} | 42 | V |
| Maximum dc blocking voltage | V_R | 60 | 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} | 80 | A |
| Typical Junction Capacitance ($V_R=4V, f=1\text{MHZ}$) | C_J | 150 | pF |
| Typical thermal resistance | (Note 2) $R_{\theta JC}$ | 15 | $^\circ\text{C/W}$ |
| | (Note 2) $R_{\theta JL}$ | 20 | |
| | (Note 1) $R_{\theta JA}$ | 150 | |
| Operating junction temperature range | T_J | -55 to +175 | $^\circ\text{C}$ |
| Storage temperature range | T_{STG} | -55 to +175 | $^\circ\text{C}$ |

Electrical Characteristics

| PARAMETER | SYMBOL | TEST CONDITION | TYP. | MAX. | UNIT |
|--------------------------|--------|----------------|------|------|---------------|
| Forward voltage | V_F | $I_F = 1A$ | 0.54 | - | V |
| | | $I_F = 3A$ | | | |
| | V_F | $I_F = 1A$ | 0.44 | - | V |
| | | $I_F = 3A$ | | | |
| Reverse current (Note 3) | I_R | $V_R = 48V$ | 0.1 | - | μA |
| | | $V_R = 60V$ | - | 5 | μA |
| | | $V_R = 60V$ | - | 2 | mA |

NOTE: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

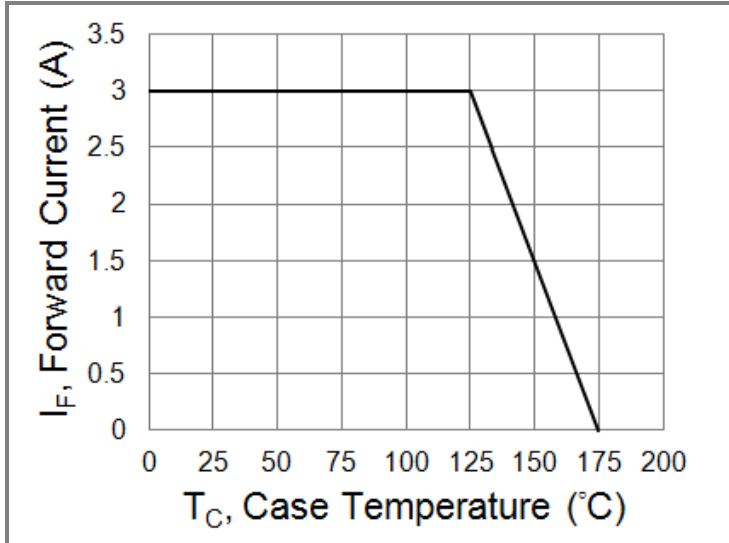


Fig.1 Forward Current Derating Curve

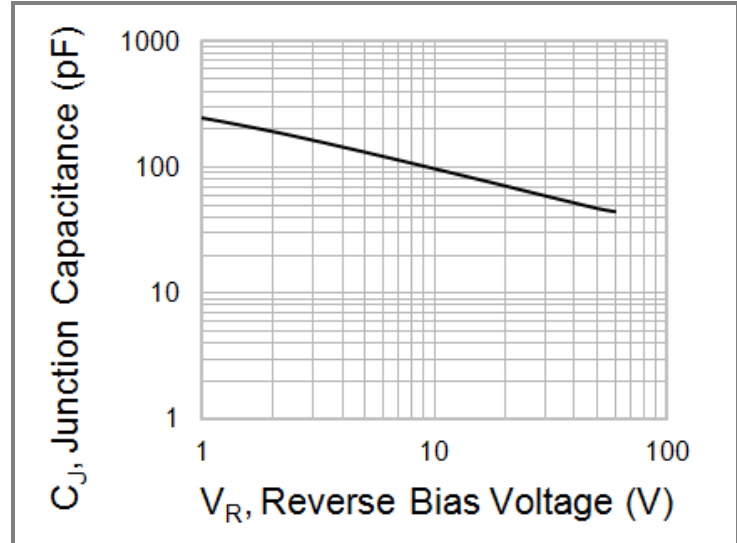


Fig. 2 Typical Junction Capacitance

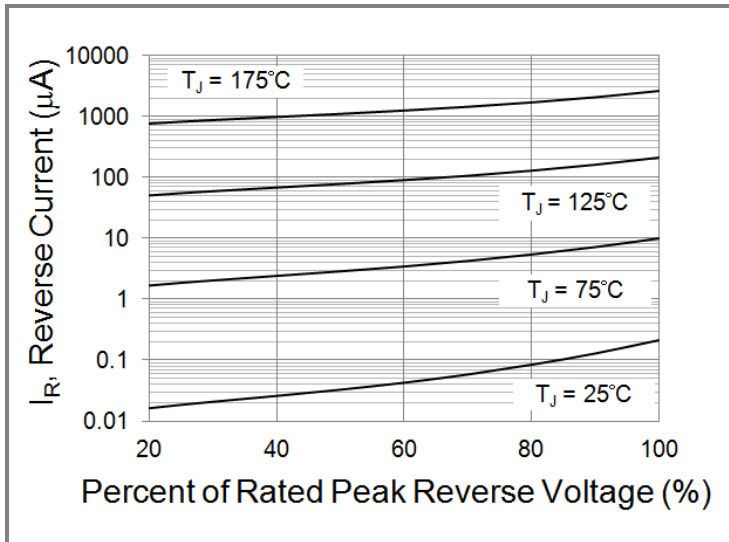


Fig.3 Typical Reverse Characteristics

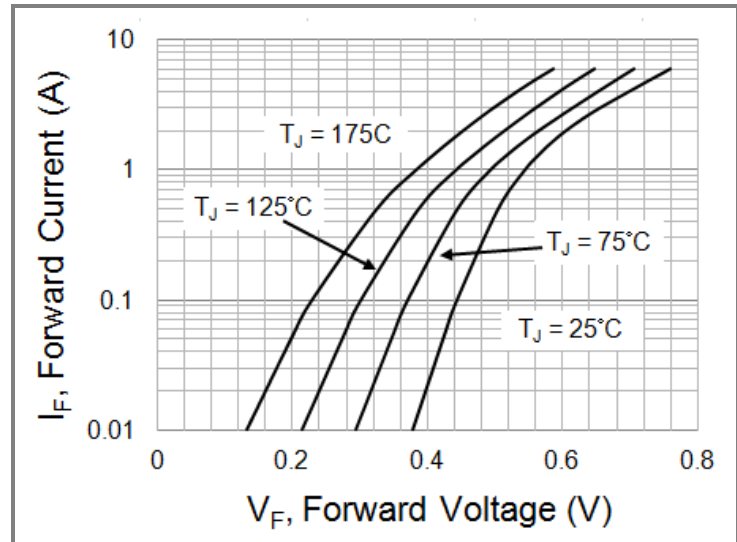


Fig.4 Typical Forward Characteristics

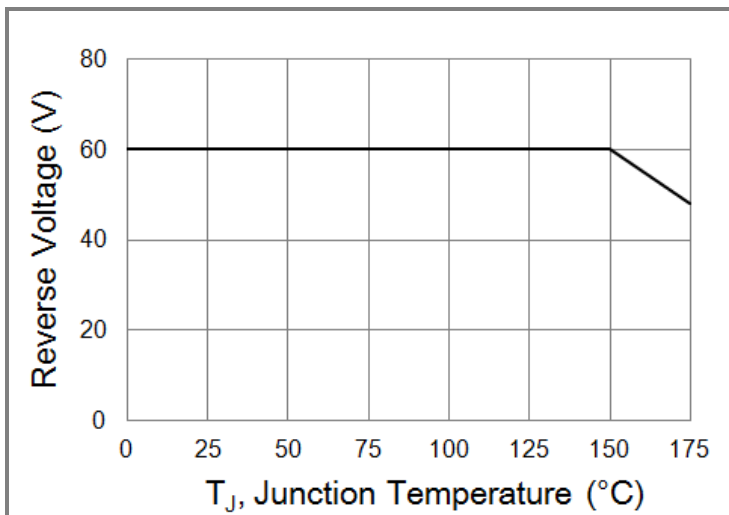


Fig.5 Operating Temperature Derating Curve

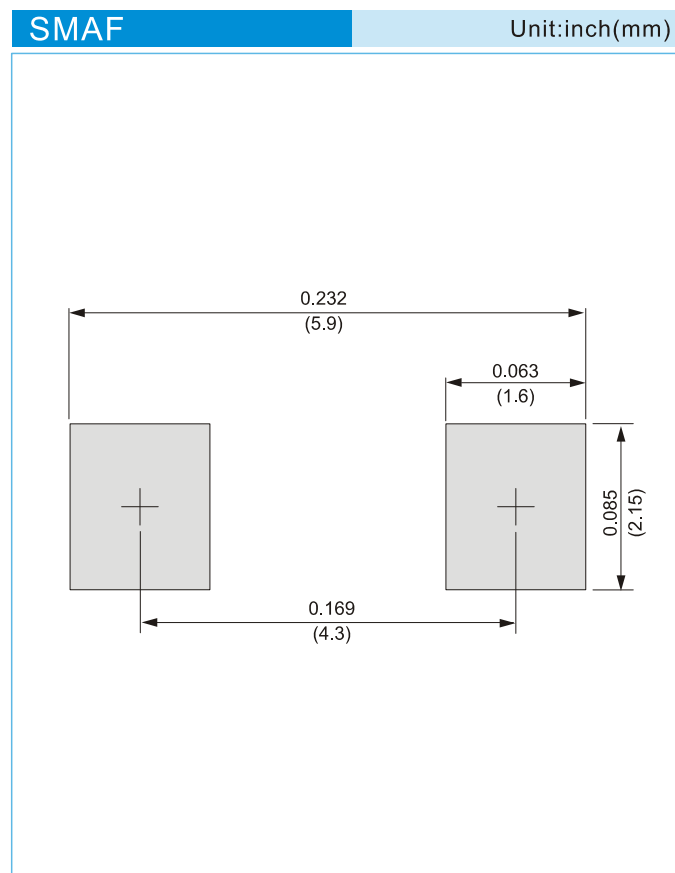


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Part No Packing Code Version

| Part No Packing Code | Package Type | Packing Type | Marking | Version |
|----------------------|--------------|--------------------|----------|--------------|
| SB3H60AF_R1_00001 | SMAF | 3K pcs / 7" reel | SB3H60AF | Halogen free |
| SB3H60AF_R2_00001 | SMAF | 10K pcs / 13" reel | SB3H60AF | Halogen free |

Mounting Pad Layout





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