



SVM860VB

ULTRA LOW VF SCHOTTKY RECTIFIER

VOLTAGE 60 Volt **CURRENT** 8 Ampere

TO-277B

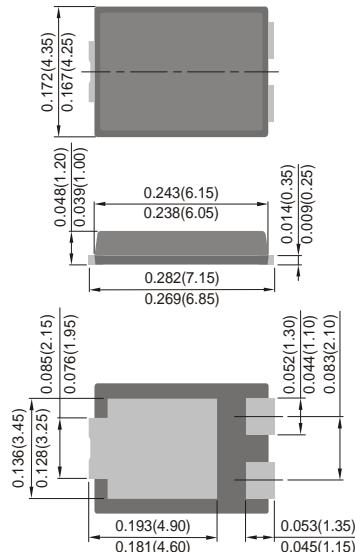
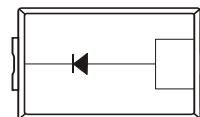
Unit : inch(mm)

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
- 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 : TO-277B, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Weight : 0.0038 ounces, 0.1088 grams
- Marking : Part number



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

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|------------------------|--------------|------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 60 | V |
| Maximum RMS Voltage | V_{RMS} | 42 | V |
| Maximum DC Blocking Voltage | V_R | 60 | V |
| Maximum Average Rectified Output Current | $I_{F(AV)}$ | 8 | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 150 | A |
| Typical Thermal Resistance (Note 1) (Note 2) | $R_{θJA}$ $R_{θJC}$ | 110 10 | °C/W |
| Operating Junction Temperature Range And Storage Temperature Range | $T_{J,T_{STG}}$ | -55 to + 150 | °C |

NOTES : 1.Mounted on an FR4 PCB, single-sided copper, mini pad.

2.Mounted on an FR4 PCB, single-sided copper, with 100cm² copper pad area



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ELECTRICAL CHARACTERISTICS ($T_A=25^\circ C$ unless otherwise noted)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN. | TYP. | MAX. | UNIT |
|-------------------------------|----------|-------------------------------------|------|------|------|---------------|
| Breakdown voltage | V_{BR} | $I_R=0.5\text{mA}$ $T_A=25^\circ C$ | 60 | - | - | V |
| Instantaneous forward voltage | V_F | $I_F=1\text{A}$ $T_A=25^\circ C$ | - | 0.32 | - | V |
| | | $I_F=5\text{A}$ $T_A=25^\circ C$ | - | 0.44 | - | |
| Reverse current | I_R | $I_F=8\text{A}$ $T_A=25^\circ C$ | - | 0.5 | 0.55 | |
| | | $I_F=1\text{A}$ $T_A=125^\circ C$ | - | 0.23 | - | V |
| | | $I_F=5\text{A}$ $T_A=125^\circ C$ | - | 0.4 | - | |
| | | $V_R=42\text{V}$ | - | 30 | - | μA |
| | | $V_R=60\text{V}$ $T_A=25^\circ C$ | - | - | 220 | μA |
| | | $T_A=125^\circ C$ | - | 13 | - | mA |



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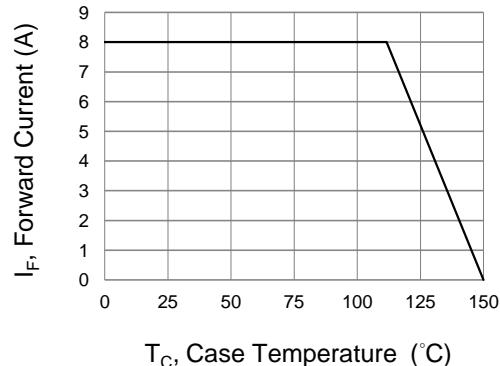


Fig.1 Forward Current Derating Curve

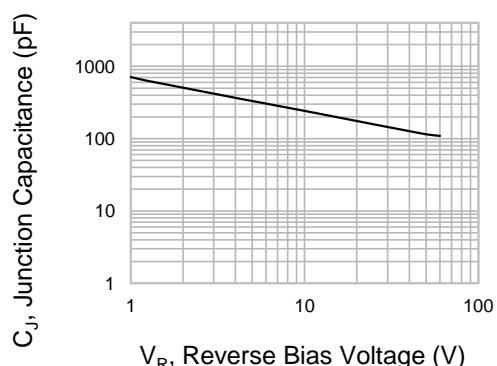


Fig.2 Typical Junction Capacitance

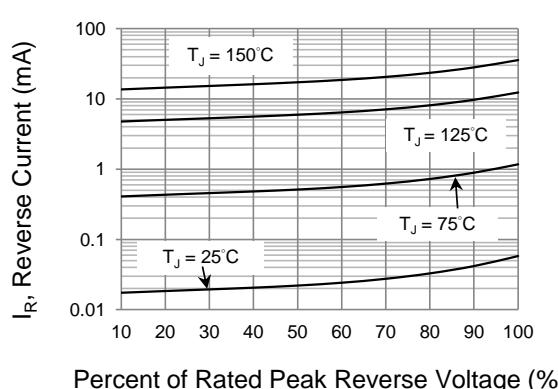


Fig.3 Typical Reverse Characteristics

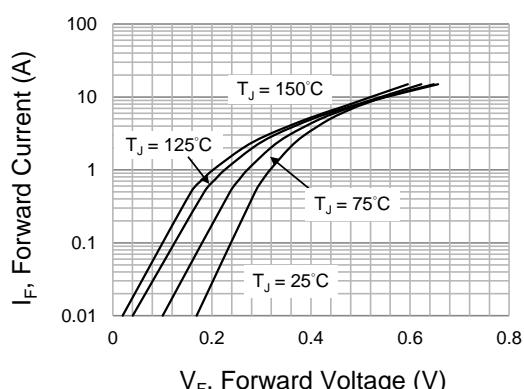


Fig.4 Typical Forward Characteristics

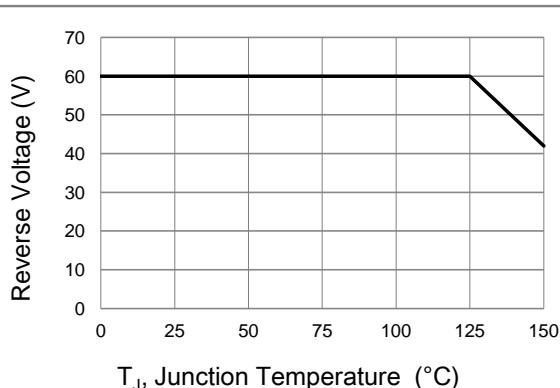
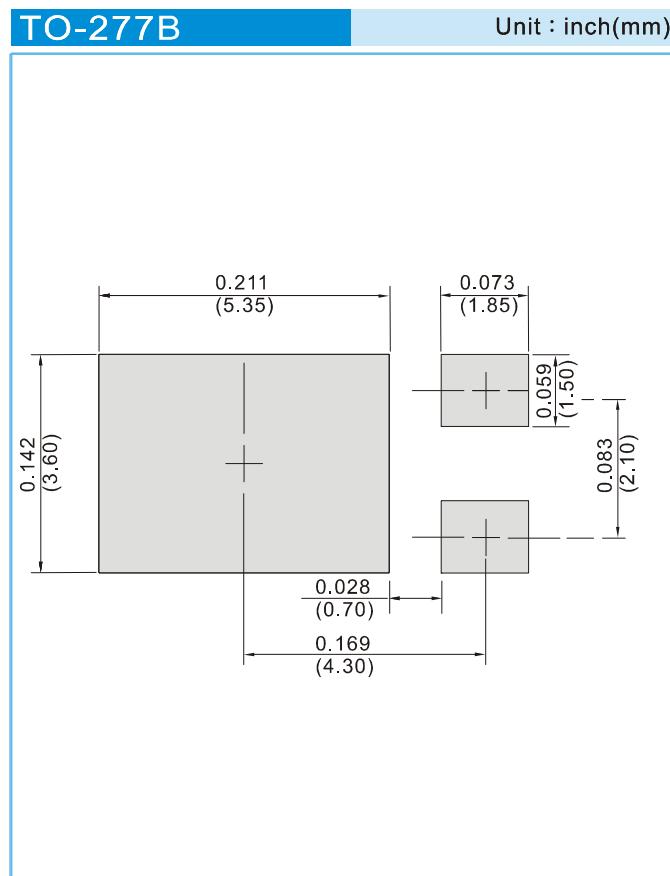


Fig.5 Operating Temperature Derating Curve



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 5K per 13" plastic Reel



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Part No_packing code_Version

SVM860VB_R2_00001

For example :

RB500V-40_R2_00001

- Part No.
-
- Serial number
 - Version code means HF
 - Packing size code means 13"
 - Packing type means T/R

| 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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