



SVC12120VB

ULTRA LOW VF SCHOTTKY RECTIFIER

VOLTAGE 120 Volt **CURRENT** 12 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)

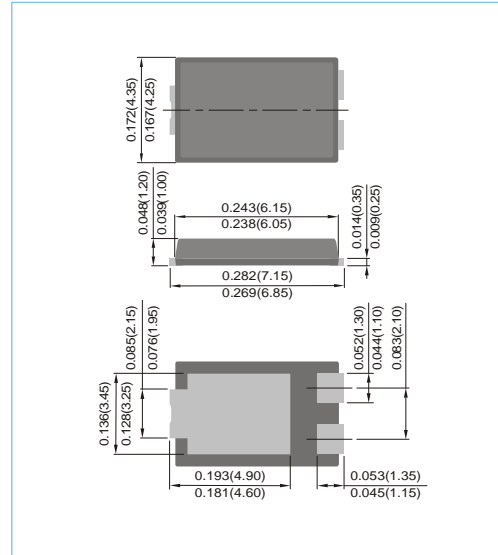
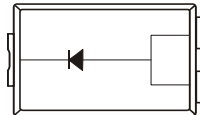
MECHANICAL DATA

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°C unless otherwise noted)

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|-----------------------------------|--------------|------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 120 | V |
| Maximum RMS Voltage | V _{RMS} | 85 | V |
| Maximum DC Blocking Voltage | V _R | 120 | V |
| Maximum Average Rectified Output Current | I _{F(AV)} | 12 | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 200 | A |
| Typical Thermal Resistance (Note 2) | R _{θJA} | 110 | °C/W |
| (Note 1) | R _{θJC} | 3 | |
| Operating Junction Temperature Range And Storage Temperature Range | T _J , T _{STG} | -55 to + 150 | °C |

NOTES : 1.Mounted on a FR4 PCB, single-sided copper, mini pad.
2.Mounted on 10cm*10cm*0.5mm copper pad area



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ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN. | TYP. | MAX. | UNIT |
|-------------------------------|-----------------|---|---|--------|---------|--------|
| Breakdown voltage | V _{BR} | I _R =0.5mA T _A =25°C | 120 | - | - | V |
| Instantaneous forward voltage | V _F | I _F =1A T _A =25°C | - | 0.4 | - | V |
| | | I _F =6A T _A =25°C | - | 0.59 | - | V |
| | | I _F =12A T _A =25°C | - | 0.71 | 0.77 | V |
| | | I _F =1A T _A =125°C | - | 0.29 | - | V |
| Reverse current | I _R | V _R =96V | - | 10 | - | μA |
| | | V _R =120V | T _A =25°C T _A =125°C | - - | - 35 | - - |

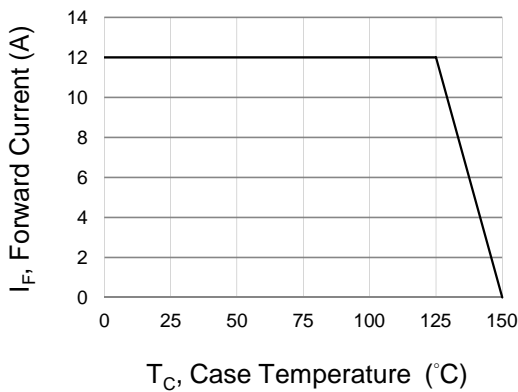


Fig.1 Forward Current Derating Curve

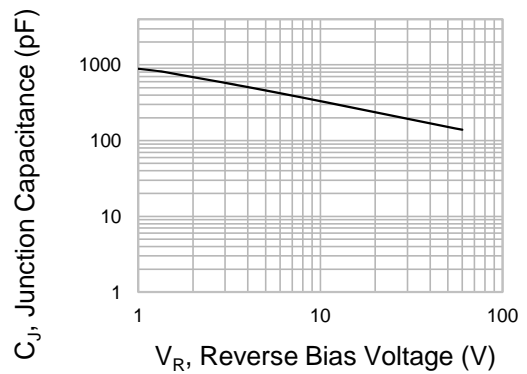


Fig.2 Typical Junction Capacitance

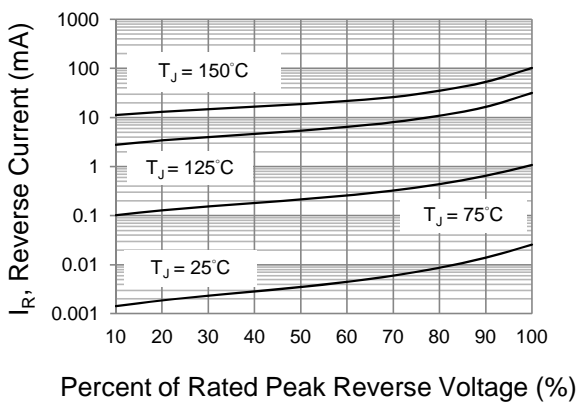


Fig.3 Typical Reverse Characteristics

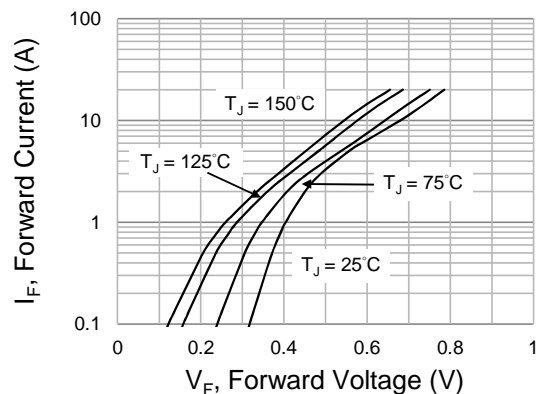


Fig.4 Typical Forward Characteristics

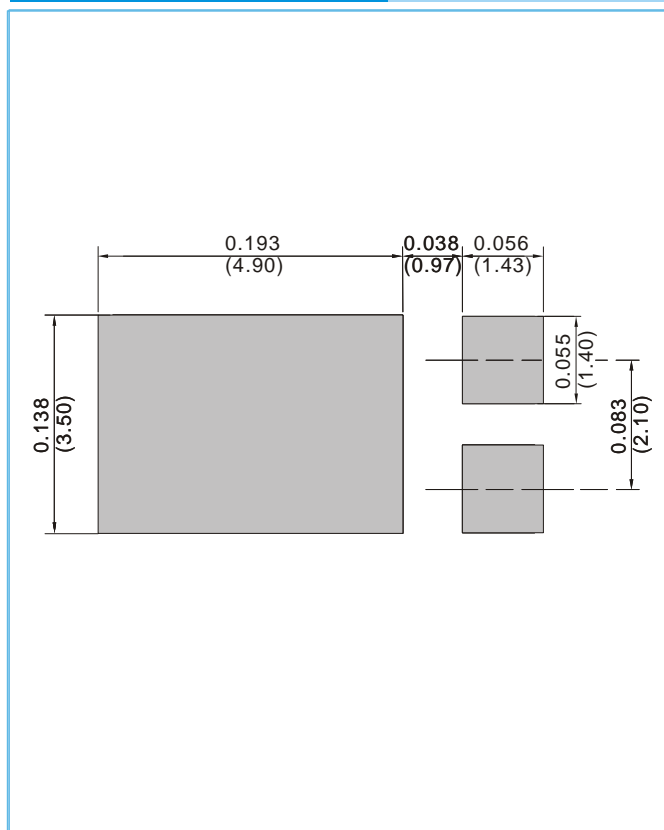


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MOUNTING PAD LAYOUT

TO-277B

Unit : inch(mm)



ORDER INFORMATION

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



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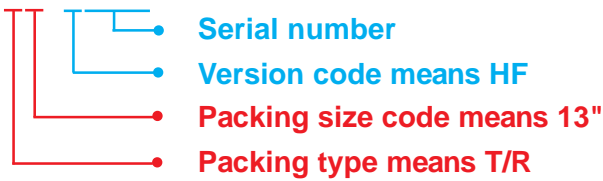
Part No_packing code_Version

SVC12120VB_R2_00001

For example :

RB500V-40_R2_00001

Part No.



| 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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