



#### LOW VF SCHOTTKY RECTIFIER

VOLTAGE 45 Volt CURRENT 15 Ampere

#### **FEATURES**

- Ideal for automated placement
- 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)

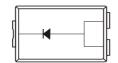
#### **MECHANICAL DATA**

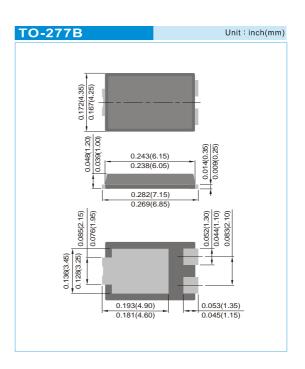
• Case: TO-277B, Plastic

• Terminals : Solderable per MIL-STD-750, Method 2026

• Weight: 0.0038 ounces, 0.1088 grams

• Marking : SVM1545LB





#### MAXIMUM RATINGS(Ta=25°C unless otherwise noted)

| PARAMETER   |                      | SYMBOL       | VALUE        | UNIT |
|---|----------------------|--------------|--------------|------|
| Maximum Recurrent Peak Reverse Voltage  |                      | VRRM         | 45           | V    |
| Maximum RMS Voltage   |                      | VRMS         | 32           | V    |
| Maximum DC Blocking Voltage   |                      | VR           | 45           | V    |
| Maximum Average Rectified Output Current  |                      | I F(AV)      | 15           | Α    |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load |                      | IFSM         | 275          | Α    |
| Typical Thermal Resistance  | (Note 1)<br>(Note 2) | Rojc<br>Roja | 6<br>110     | °C/W |
| Operating Junction Temperature Range And Storage Temperature Range                  |                      | TJ,Tstg      | -55 to + 150 | °C   |

### NOTES:

- 1. Mounted on an FR4 PCB, single-sided copper, with 10\*10cm\*0.5mm copper pad area
- 2. Mounted on an FR4 PCB, single-sided copper, mini pad.



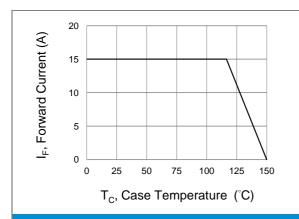


### ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

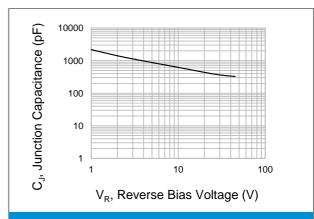
| PARAMETER                     | SYMBOL | TEST CONDITIONS           |                     | MIN.        | TYP.                 | MAX.           | UNIT     |
|-------------------------------|--------|---------------------------|---------------------|-------------|----------------------|----------------|----------|
| Breakdown voltage             | VBR    | I R=0.5mA                 | Ta=25°C             | 45          | -                    | -              | V        |
| Instantaneous forward voltage | VF     | F=1A<br>  F=5A<br>  F=15A | Ta=25°C             | -<br>-<br>- | 0.28<br>0.35<br>0.43 | -<br>-<br>0.49 | V        |
|                               |        | F=1A<br>  F=5A<br>  F=15A | Ta=125°C            | -<br>-<br>- | 0.17<br>0.27<br>0.38 | -<br>-<br>-    | V        |
| Reverse current               | l R    | VR=36V                    | Ta=25°C             | -           | 55                   | -              | μΑ       |
|                               |        | VR=45V                    | Ta=25°C<br>Ta=125°C | -           | -<br>20              | 320<br>-       | μA<br>mA |







**Fig.1 Forward Current Derating Curve** 



**Fig.2 Typical Junction Capacitance** 

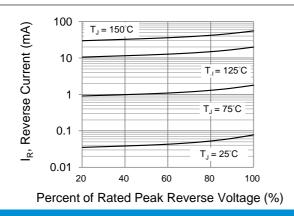


Fig.3 Typical Reverse Characteristics

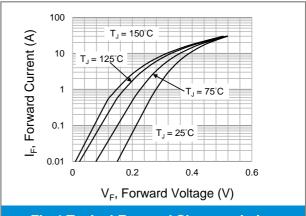
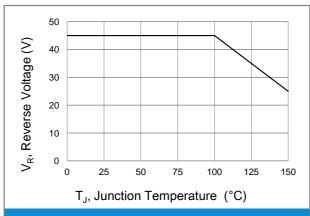


Fig.4 Typical Forward Characteristics

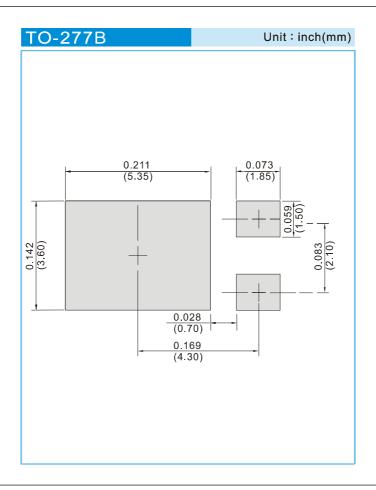


**Fig.5 Operating Temperature Derating Curve** 





### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

• Packing information

T/R - 5K per 13" plastic Reel





### Part No\_packing code\_Version

SVM1545LB\_R2\_00001

# For example :



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





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