

# SVM1545LB

## LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 45 Volt **CURRENT** 15 Ampere

**TO-277B**

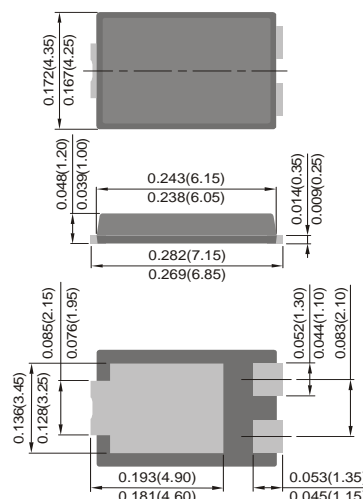
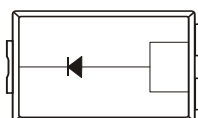
Unit : inch(mm)

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

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	45	V
Maximum RMS Voltage	V <sub>RMS</sub>	32	V
Maximum DC Blocking Voltage	V <sub>R</sub>	45	V
Maximum Average Rectified Output Current	I <sub>F(AV)</sub>	15	A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	275	A
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	6	°C/W
(Note 2)	R <sub>θJA</sub>	110	
Operating Junction Temperature Range And Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-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.

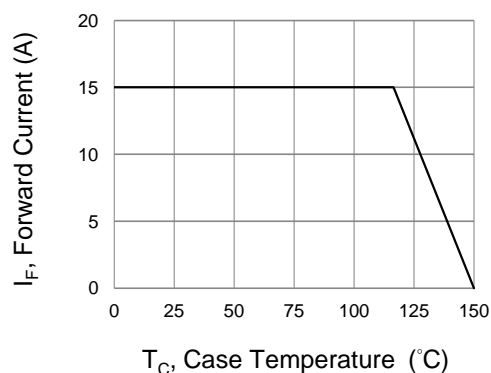


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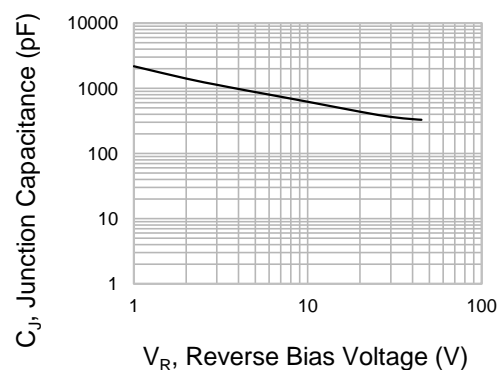
## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	V <sub>BR</sub>	I <sub>R</sub> =0.5mA      T <sub>A</sub> =25°C	45	-	-	V
Instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> =1A      T <sub>A</sub> =25°C	-	0.28	-	V
		I <sub>F</sub> =5A      T <sub>A</sub> =25°C	-	0.35	-	
		I <sub>F</sub> =15A      T <sub>A</sub> =25°C	-	0.43	0.49	
		I <sub>F</sub> =1A      T <sub>A</sub> =125°C	-	0.17	-	V
Reverse current	I <sub>R</sub>	I <sub>F</sub> =5A      T <sub>A</sub> =125°C	-	0.27	-	
		I <sub>F</sub> =15A      T <sub>A</sub> =125°C	-	0.38	-	
		V <sub>R</sub> =36V      T <sub>A</sub> =25°C	-	55	-	μA
		V <sub>R</sub> =45V      T <sub>A</sub> =25°C	-	-	320	μA
		V <sub>R</sub> =45V      T <sub>A</sub> =125°C	-	20	-	mA

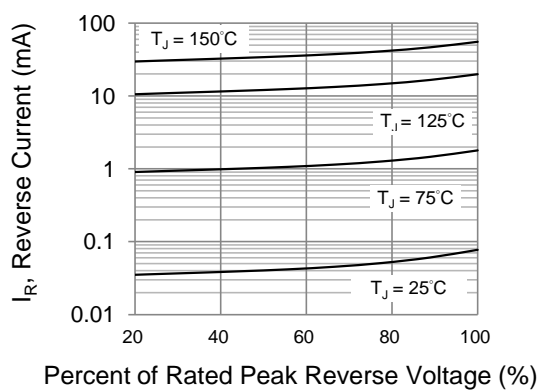
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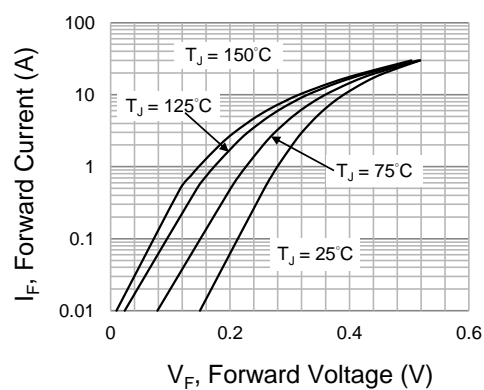
**Fig.1 Forward Current Derating Curve**



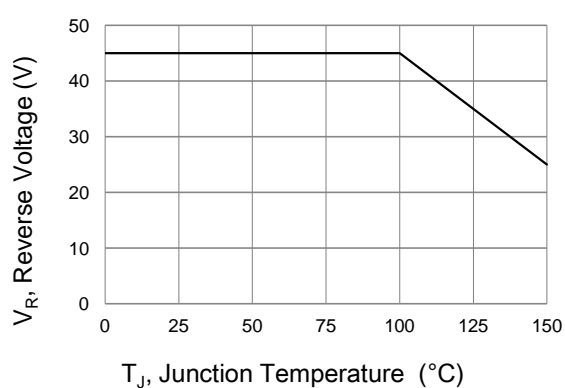
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



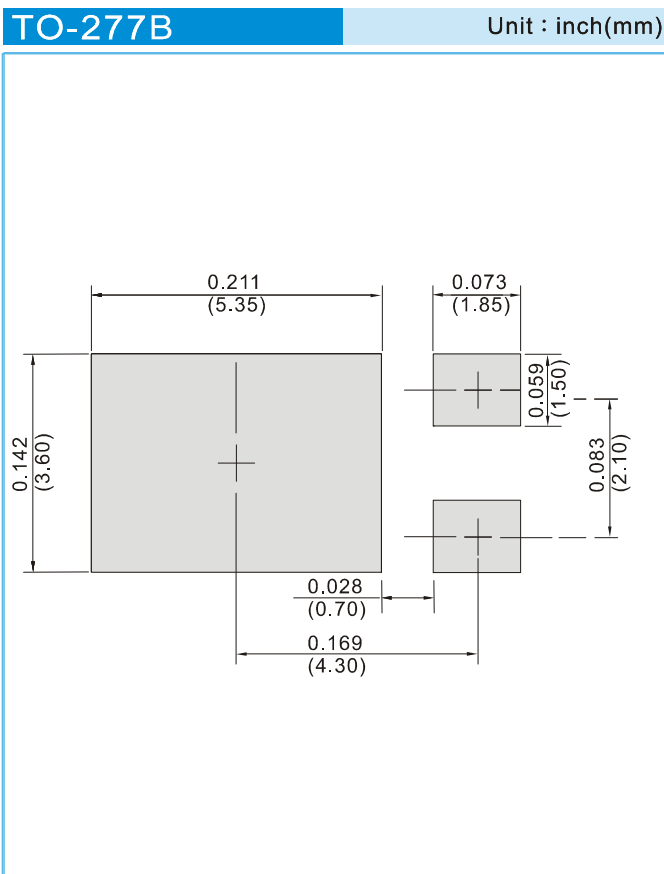
**Fig.4 Typical Forward Characteristics**



**Fig.5 Operating Temperature Derating Curve**

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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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



# SVM1545LB

Part No\_packing code\_Version

SVM1545LB\_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 <b>XX</b>				Version Code <b>XXXXX</b>		
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)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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