SVM1045VB

LOW VF SCHOTTKY RECTIFIER

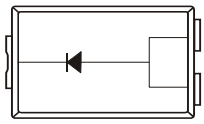
VOLTAGE	45 Volt	CURRENT	10 Ampere

FEATURES

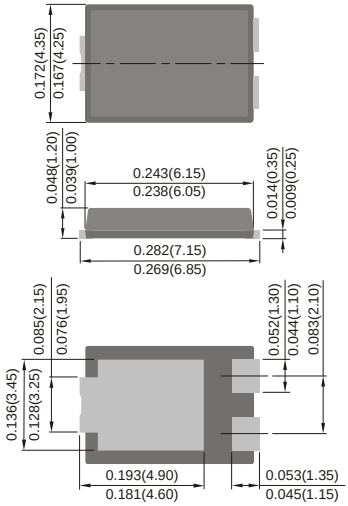
- Ideal for automated placement
- Low forward voltage drop, low power loss
- High efficiency Operation
- Low thermal resistance
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

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



TO-277B Unit : inch(mm)



MAXIMUM RATINGS(T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	45	V
Maximum RMS Voltage	V_{RMS}	32	V
Maximum DC Blocking Voltage	V_R	45	V
Maximum Average Rectified Output Current	$I_{F(AV)}$	10	A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load	I_{FSM}	275	A
Typical Thermal Resistance ,Junction to Ambient (Note 2) Junction to Case (Note 1)	$R_{\Theta JA}$ $R_{\Theta JC}$	110 8	°C/W
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, with 100cm^2 copper pad area.
2.Mounted on a FR4 PCB, single-sided copper, mini pad.

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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	45	-	-	V
Instantaneous forward voltage	V_F	I_F=3A I_F=5A I_F=10A	T_A=25°C	- - -	0.34 0.38 0.44	- - 0.47	V
		I_F=3A I_F=5A I_F=10A	T_A=125°C	- - -	0.27 0.32 0.41	- - -	V
Reverse current	I_R	V_R=36V	T_A=25°C	-	32	-	μA
		V_R=45V	T_A=25°C T_A=125°C	- -	- 8.6	0.25 -	mA mA

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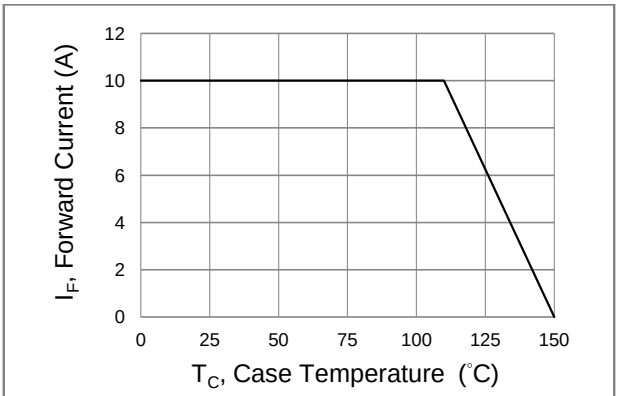

Fig.1 Forward Current Derating Curve

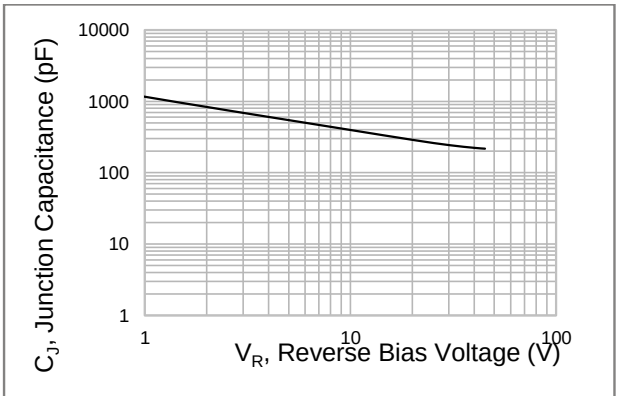

Fig.2 Typical Junction Capacitance

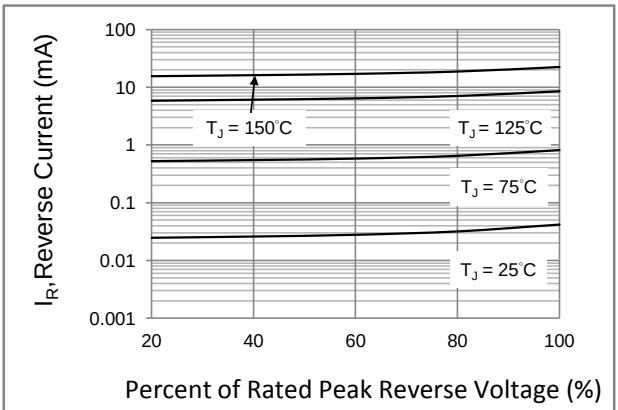

Fig.3 Typical Reverse Characteristics

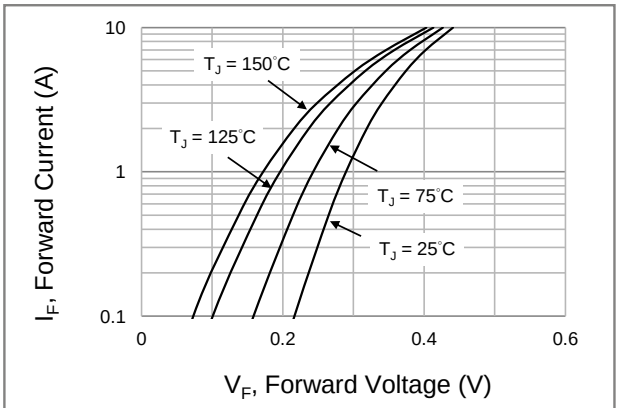

Fig.4 Typical Forward Characteristics

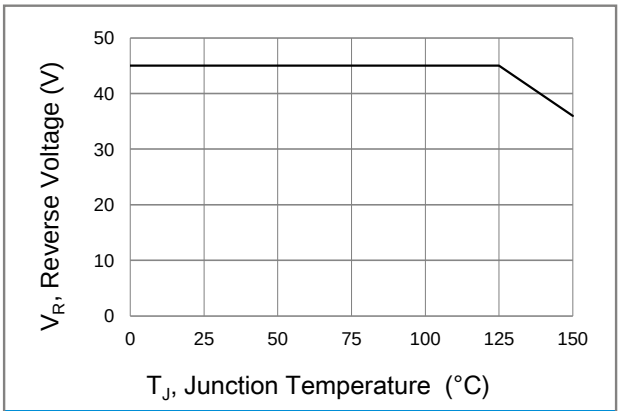

Fig.5 Operating Temperature Derating Curve

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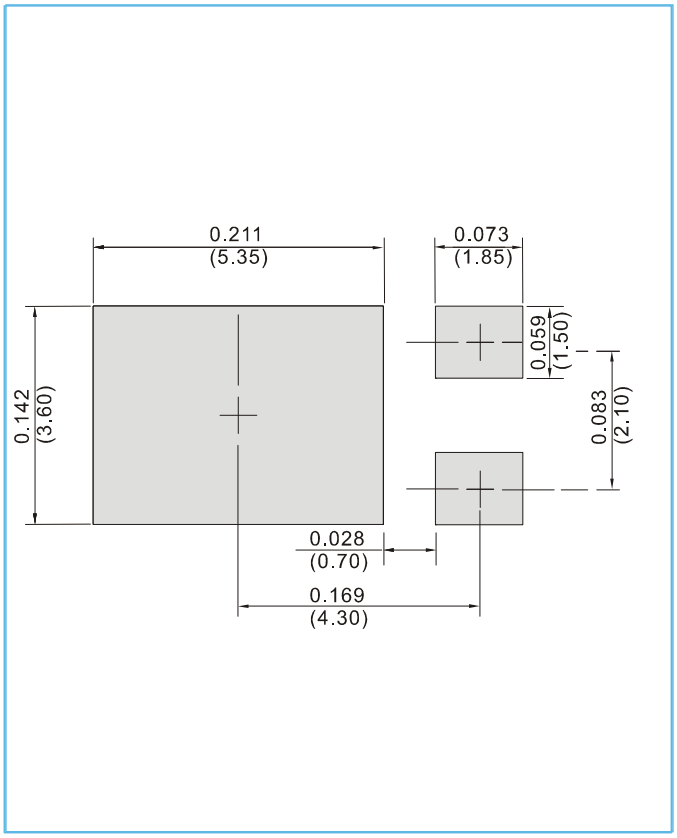
MOUNTING PAD LAYOUT

TO-277B Unit : inch(mm)



ORDER INFORMATION

- Packing information

  T/R - 5K per 13" plastic Reel

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