

SVM1045V2B

LOW VF SCHOTTKY RECTIFIER

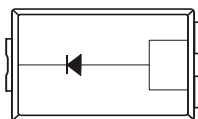
VOLTAGE	45 Volt	CURRENT	10 Ampere
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FEATURES

- 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)

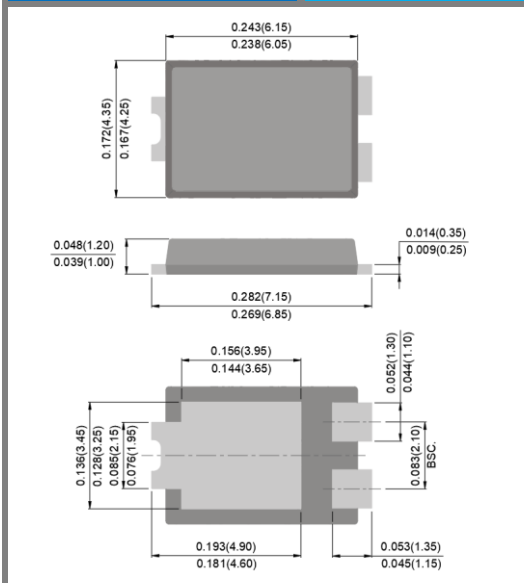
MECHANICAL DATA

- Case : TO-277B, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Weight: 0.0038 ounces, 0.1088 grams
- Marking:SVM1045V2B



TO-277B Dimension

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 Junction capacitance $V_R=4V, 1MHz$	C_J	860	pF
Typical Thermal Resistance ,Junction to Ambient Junction to Case	$R_{\theta JA}$ $R_{\theta JC}$	110 13	°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, with 100cm² copper pad area.
2. Mounted on an 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 =1A T _A =25°C	-	0.28	-	V
		I _F =5A T _A =25°C	-	0.36	-	
		I _F =10A T _A =25°C	-	0.41	0.44	
		I _F =1A T _A =125°C	-	0.18	-	V
Reverse current	I _R	I _F =5A T _A =125°C	-	0.28	-	
		I _F =10A T _A =125°C	-	0.36	-	
		V _R =36V T _A =25°C	-	70	-	μA
		V _R =45V T _A =25°C	-	-	220	μA
		V _R =45V T _A =125°C	-	35	-	mA

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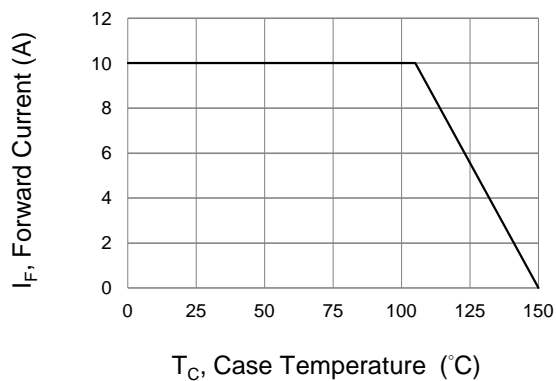


Fig.1 Forward Current Derating Curve

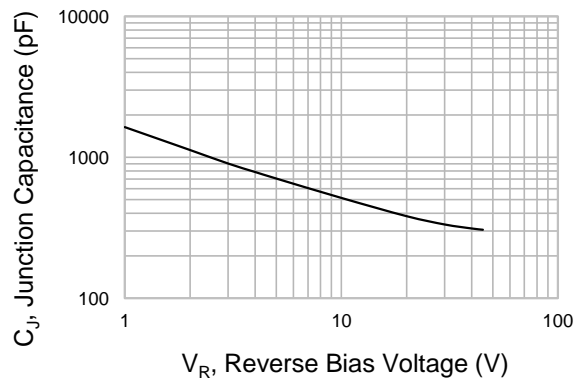


Fig.2 Typical Junction Capacitance

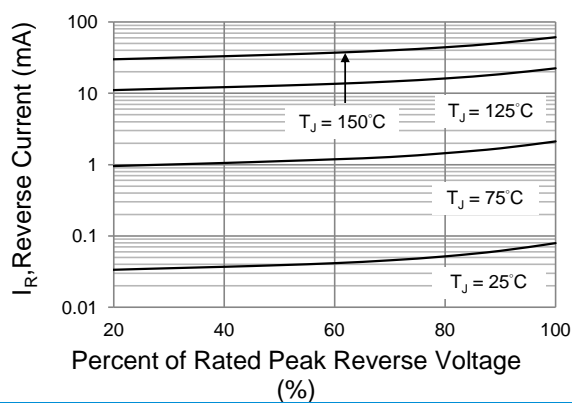


Fig.3 Typical Reverse Characteristics

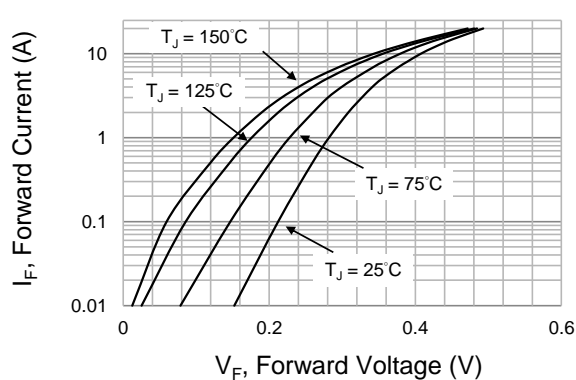


Fig.4 Typical Forward Characteristics

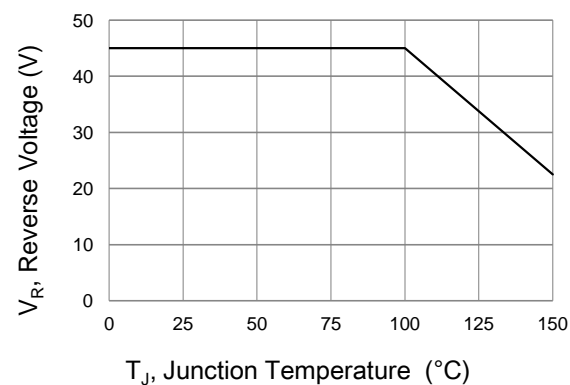


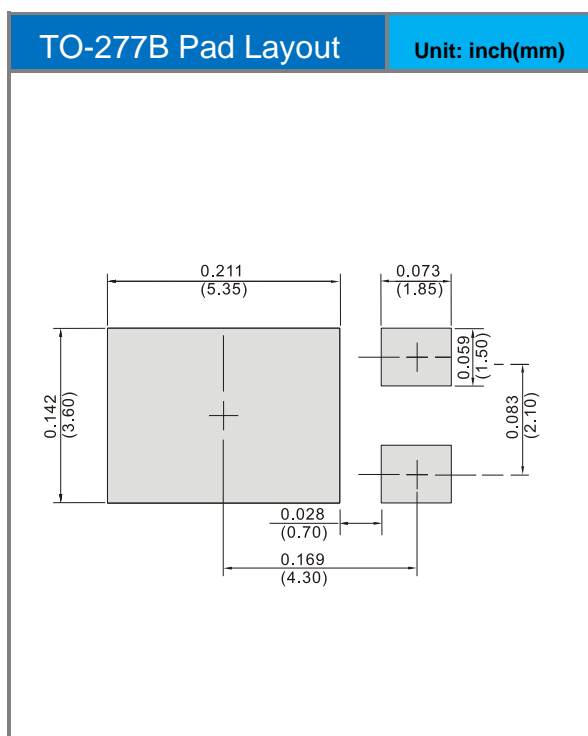
Fig.5 Operating Temperature Derating Curve

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SVM10452V2B	TO-277B	5K pcs / 13" reel	SVM10452V2B

Mounting Pad Layout



SVM1045V2B

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