

SVM1045VA

ULTRA LOW VF SCHOTTKY RECTIFIER

VOLTAGE 45 Volt **CURRENT** 10 Ampere

FEATURES

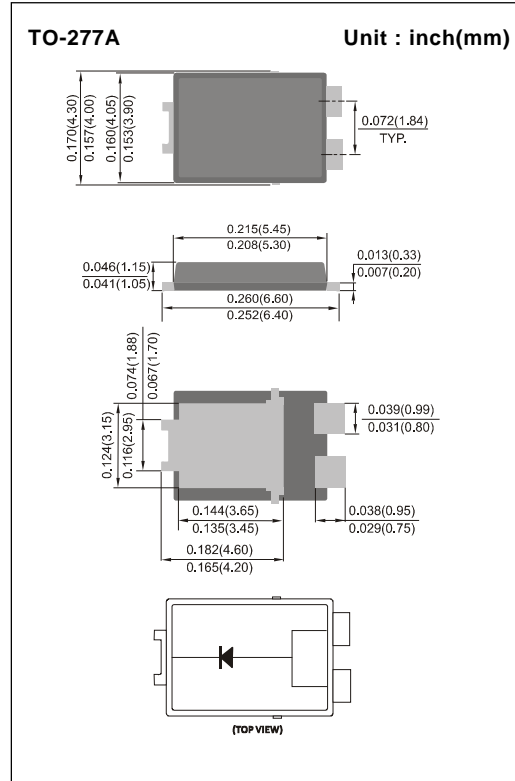
- Ideal for automated placement
- Ultra low forward voltage drop, low power loss
- High efficiency Operation
- Low thermal resistance
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

Case : TO-277A, Plastic

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

Weight : 0.003 ounces, 0.0855 grams



MAXIMUM RATINGS($T_A=25^{\circ}\text{C}$ 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)	$R_{\theta JA}$	110	$^{\circ}\text{C/W}$
Junction to Case (Note 1)	$R_{\theta JC}$	8	$^{\circ}\text{C/W}$
Operating Junction Temperature Range And Storage Temperature Range	T_J, T_{STG}	-55 to + 150	$^{\circ}\text{C}$

NOTES:1.Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area.
2.Mounted on a FR4 PCB, single-sided copper, mini pad.

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ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	V_{BR}	$I_R=0.5\text{mA}$ $T_A=25^\circ\text{C}$	45	-	-	V
Instantaneous forward voltage	V_F	$I_F=3\text{A}$ $T_A=25^\circ\text{C}$	-	0.34	-	V
		$I_F=5\text{A}$ $T_A=25^\circ\text{C}$	-	0.38	-	V
Instantaneous forward voltage	V_F	$I_F=10\text{A}$ $T_A=25^\circ\text{C}$	-	0.44	0.47	V
		$I_F=3\text{A}$ $T_A=125^\circ\text{C}$	-	0.27	-	V
Reverse current	I_R	$V_R=36\text{V}$ $T_A=25^\circ\text{C}$	-	32	-	μA
		$V_R=45\text{V}$ $T_A=25^\circ\text{C}$	-	-	0.25	mA
Reverse current	I_R	$V_R=45\text{V}$ $T_A=125^\circ\text{C}$	-	8.6	-	mA

RATING AND CHARACTERISTIC CURVES

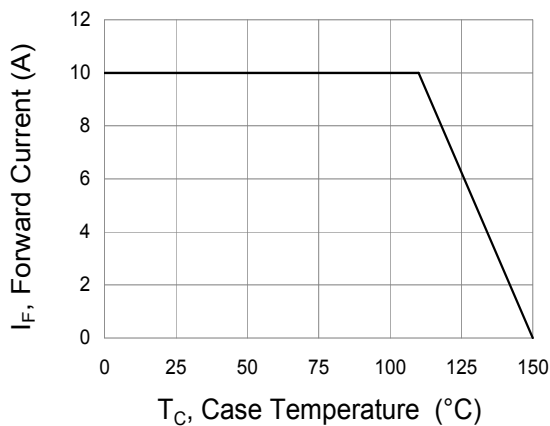


Fig.1 Forward Current Derating Curve

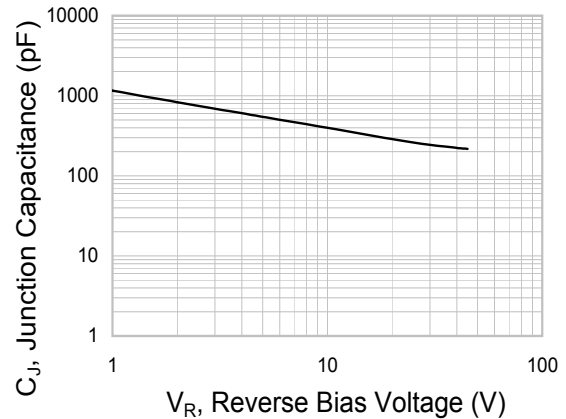


Fig.2 Typical Junction Capacitance

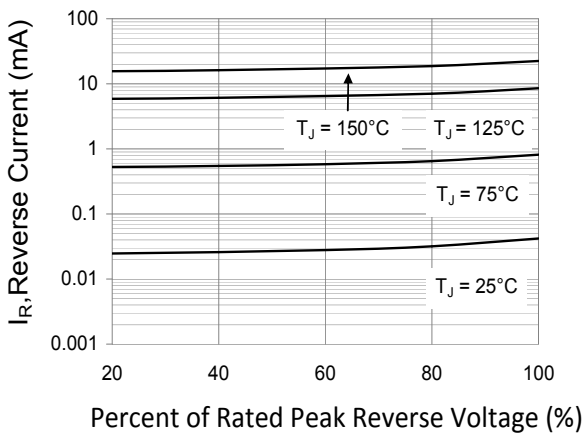


Fig.3 Typical Reverse Characteristics

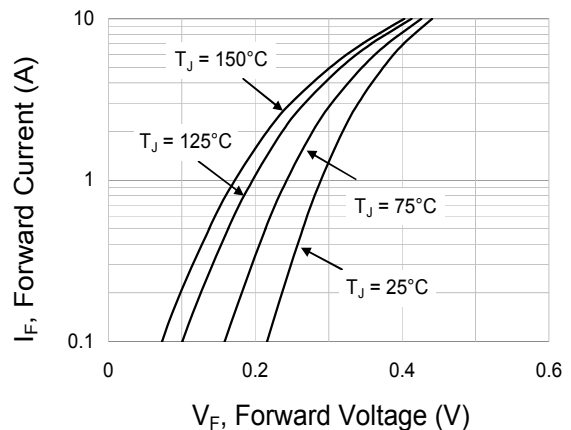


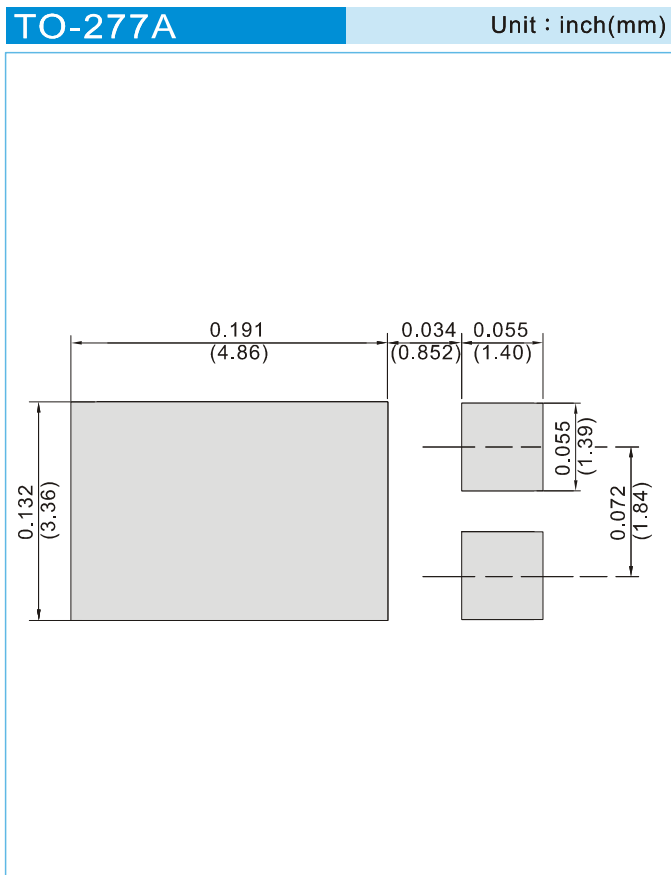
Fig.4 Typical Forward Characteristics

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SVM1045VA	TO-277A	5K pcs / 13" reel	SVM1045V

Mounting Pad Layout



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