



# SVM1045VA

## ULTRA LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 45 Volt **CURRENT** 10 Ampere

### FEATURES

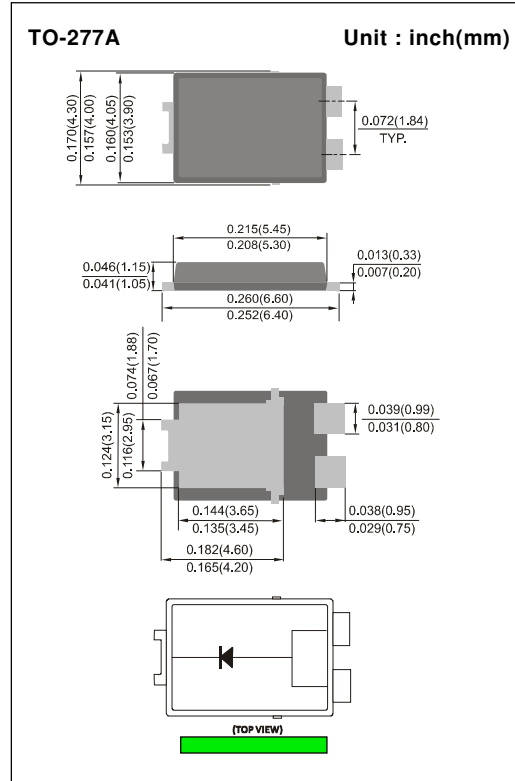
- Ideal for automated placement
- Ultra low forward voltage drop, low power loss
- High efficiency Operation
- Low thermal resistance
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### 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	$^{\circ}\text{C}/\text{W}$
Junction to Case (Note 1)	$R_{\theta JC}$	8	$^{\circ}\text{C}/\text{W}$
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 100cm<sup>2</sup> copper pad area.  
2.Mounted on a FR4 PCB, single-sided copper, mini pad.

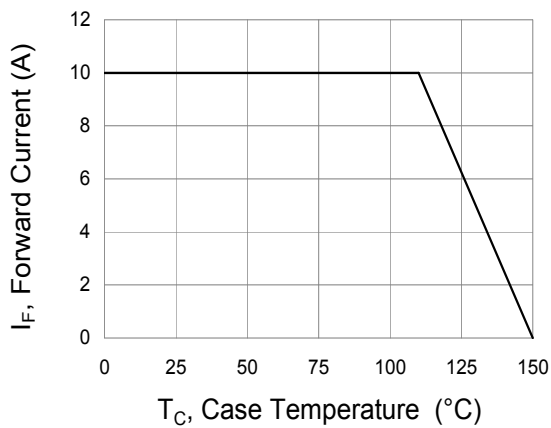


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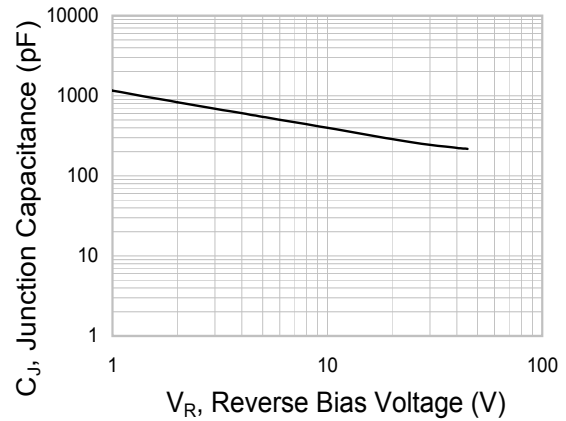
## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

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> =3A T <sub>A</sub> =25°C	-	0.34	-	V
		I <sub>F</sub> =5A T <sub>A</sub> =25°C	-	0.38	-	V
		I <sub>F</sub> =10A T <sub>A</sub> =25°C	-	0.44	0.47	V
		I <sub>F</sub> =3A T <sub>A</sub> =125°C	-	0.27	-	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =36V T <sub>A</sub> =25°C	-	32	-	A
		V <sub>R</sub> =45V T <sub>A</sub> =25°C	-	-	0.25	mA
		V <sub>R</sub> =45V T <sub>A</sub> =125°C	-	8.6	-	mA

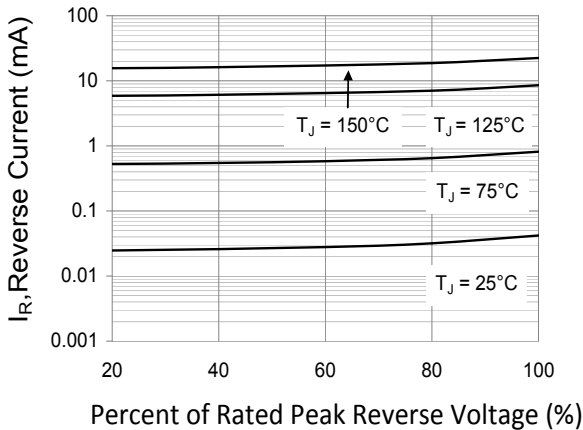
### RATING AND CHARACTERISTIC CURVES



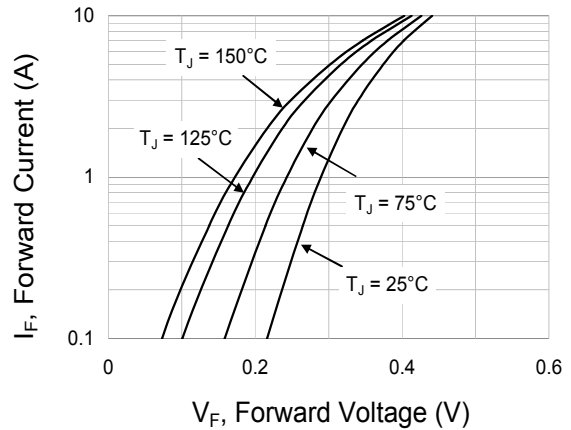
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

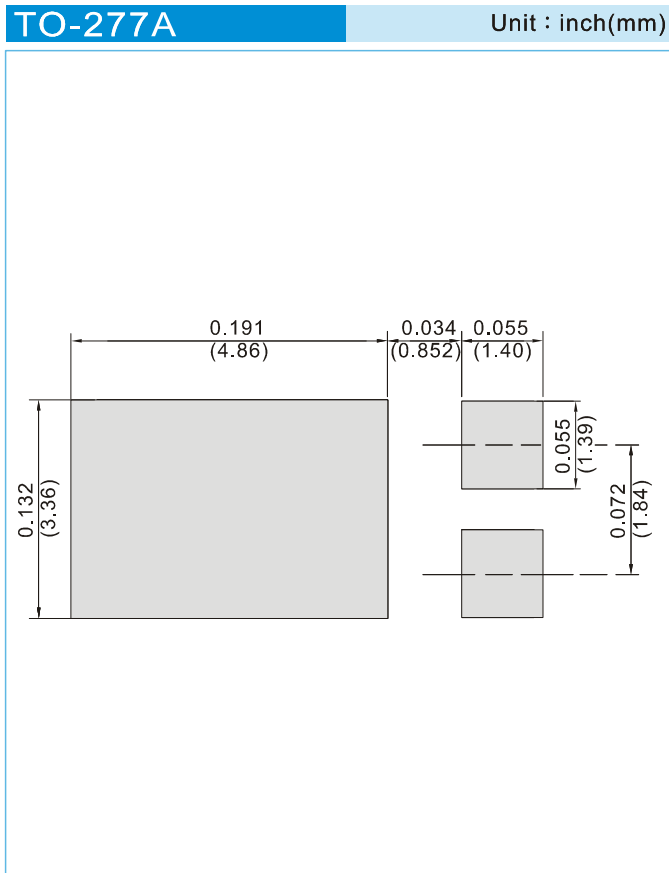


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## PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
SVM1045VA_R2_00001	TO-277A	5K pcs / 13" reel	SVM1045V	Halogen free

## MOUNTING PAD LAYOUT





## SVM1045VA

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