



SVM1045V

LOW VF SCHOTTKY RECTIFIER

VOLTAGE 45 Volts **CURRENT** 10 Amperes

TO-277

Unit : inch(mm)

FEATURES

- Ideal for automated placement
- Low forward voltage drop, low power losses
- High efficiency Operation
- Low thermal resistance
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

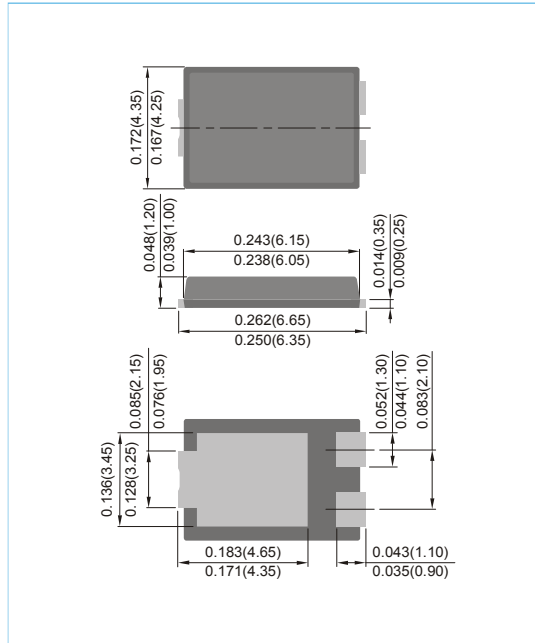
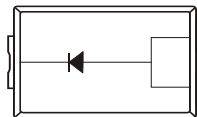
MECHANICAL DATA

Case : TO-277, Plastic

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

Weight: 0.0037 ounces, 0.1073 grams

Marking:SVM1045V



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 (JEDEC method)	I_{FSM}	275	A
Typical Thermal Resistance ,Junction to Ambient (Note 1)	$R_{\theta JA}$	60	$^{\circ}\text{C/W}$
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	$^{\circ}\text{C}$

NOTE:

1. Mounted on 50cm² FR-4 PCB.



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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 T _A =25°C	-	0.34	-	V
		I _F =5A T _A =25°C	-	0.38	-	V
		I _F =10A T _A =25°C	-	0.44	0.47	V
		I _F =3A T _A =125°C	-	0.27	-	V
Reverse current	I _R	V _R =36V T _A =25°C	-	32	-	μA
		V _R =45V T _A =25°C	-	-	0.25	mA
		V _R =45V T _A =125°C	-	8.6	-	mA

RATING AND CHARACTERISTIC CURVES

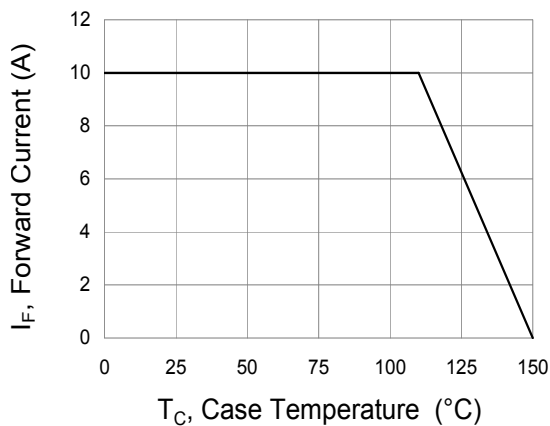


Fig.1 Forward Current Derating Curve

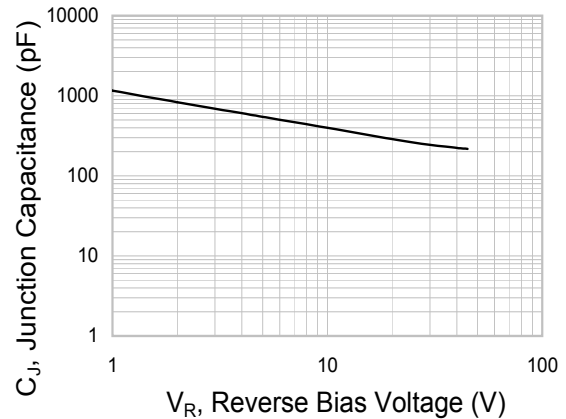


Fig.2 Typical Junction Capacitance

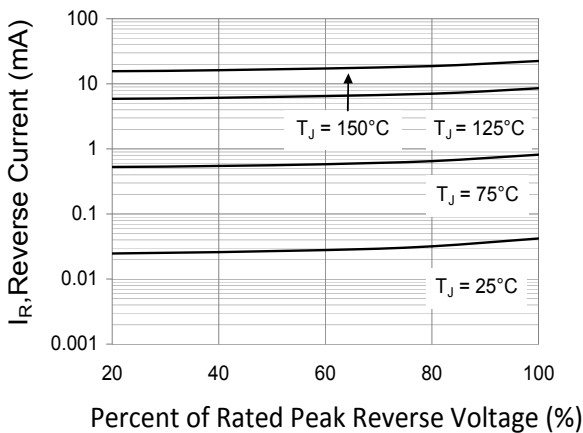


Fig.3 Typical Reverse Characteristics

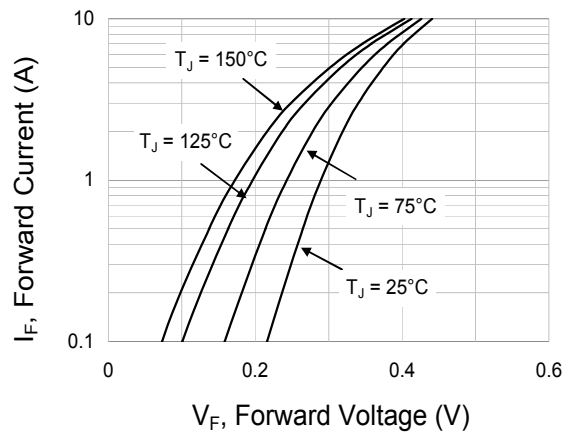
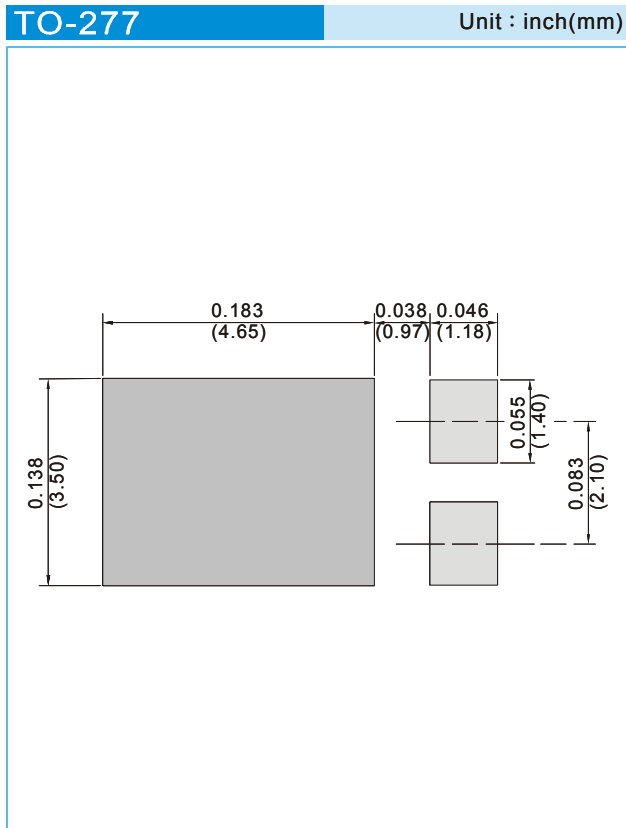


Fig.4 Typical Forward Characteristics



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MOUNTING PAD LAYOUT



ORDER INFORMATION

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