



# SVM1045V2

## 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
- Ultra thin profile package for space constrained utilization
- Package suitable for automated handling
- Lead free in comply with EU RoHS 2011/65/EU directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

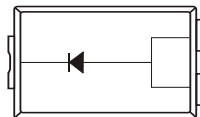
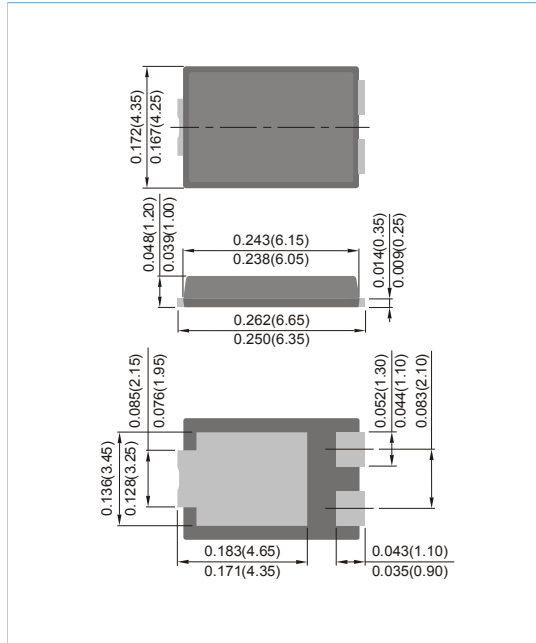
### MECHANICAL DATA

Case : TO-277, Plastic

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

Weight: 0.0037 ounces, 0.1073 grams

Marking:SVM1045V2



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

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	45	V
Maximum RMS Voltage	V <sub>RMS</sub>	32	V
Maximum DC Blocking Voltage	V <sub>R</sub>	45	V
Maximum Average Rectified Output Current	I <sub>F(AV)</sub>	10	A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	275	A
Typical Junction capacitance	V <sub>R</sub> =4V, 1MHz C <sub>J</sub>	860	pF
Typical Thermal Resistance ,Junction to Ambient	(Note 2) R <sub>θJA</sub>	110	°C/W
Junction to Case	(Note 1) R <sub>θJC</sub>	13	
Operating junction temperature range and Storage temperature range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to + 150	°C

### NOTES:

- 1.Mounted on an FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.
- 2.Mounted on an FR4 PCB, single-sided copper, mini pad.

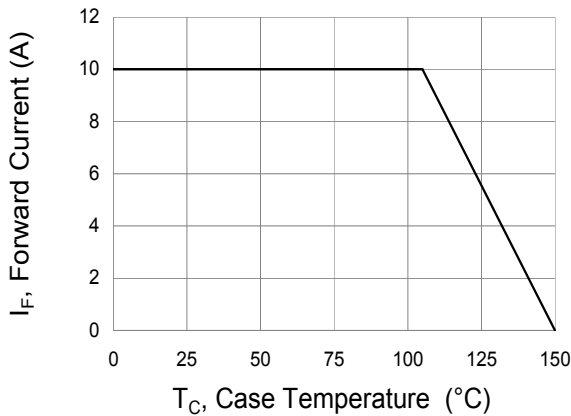


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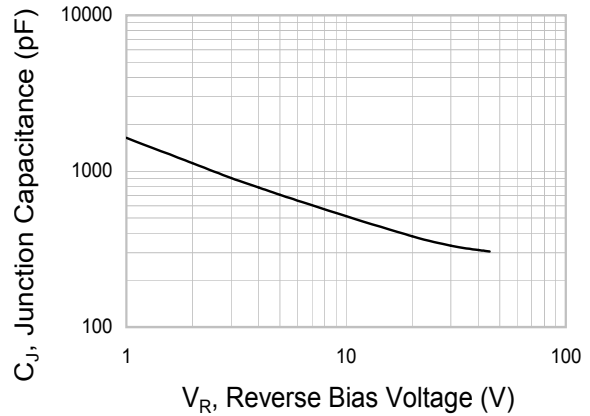
## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

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> =1A I <sub>F</sub> =5A I <sub>F</sub> =10A T <sub>A</sub> =25°C	-	0.28 0.36 0.41	- - 0.44	V
		I <sub>F</sub> =1A I <sub>F</sub> =5A I <sub>F</sub> =10A T <sub>A</sub> =125°C	-	0.18 0.28 0.36	- - -	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =36V T <sub>A</sub> =25°C	-	70	-	μA
		V <sub>R</sub> =45V T <sub>A</sub> =25°C T <sub>A</sub> =125°C	- -	- 35	220 -	μA mA

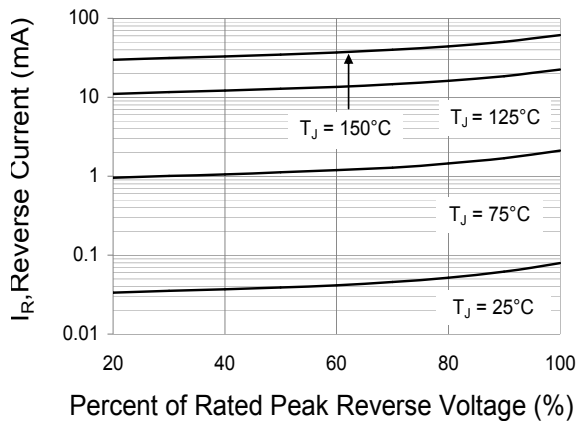
### RATING AND CHARACTERISTIC CURVES



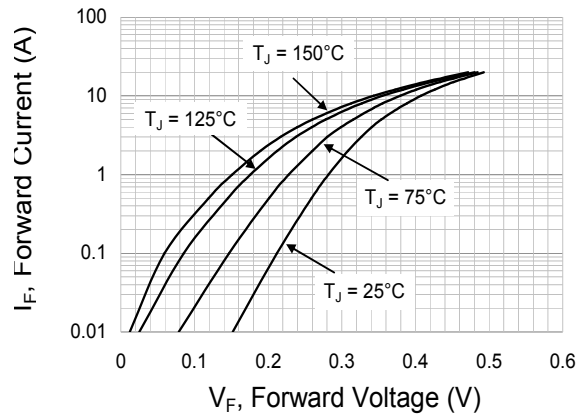
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**

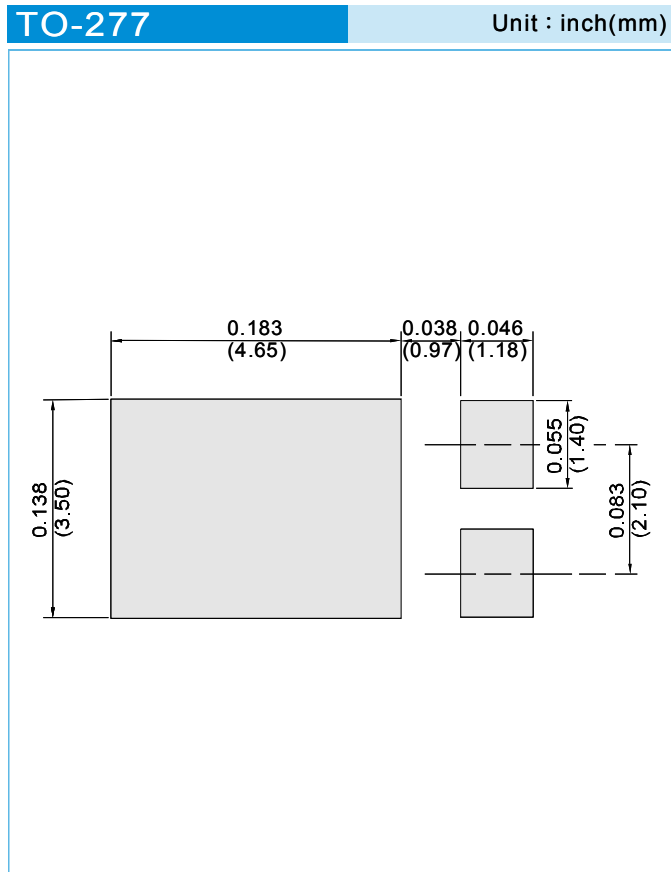


**Fig.4 Typical Forward Characteristics**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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



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## Part No\_packing code\_Version

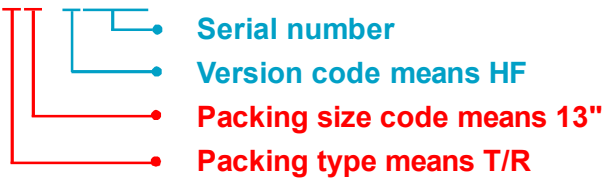
SVM1045V2\_R2\_00001

SVM1045V2\_00001

For example :

**RB500V-40\_R2\_00001**

Part No.



Packing Code XX				Version Code XXXXX		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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