



# SRM54AVF

## LOW VF SCHOTTKY

**VOLTAGE** 45 Volt **CURRENT** 5 Ampere

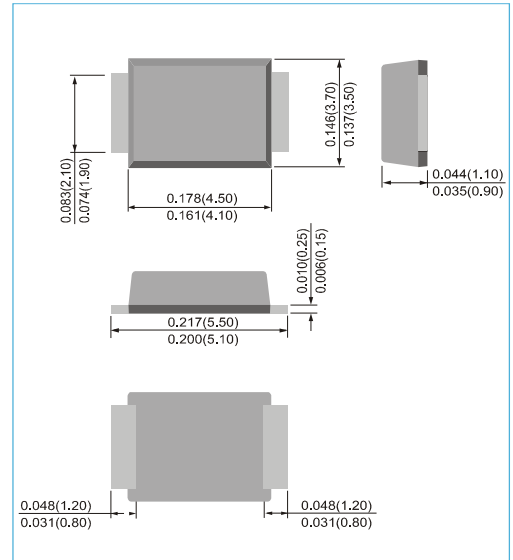
**SMBF** Unit : inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Ultra thin profile package for space constrained utilization
- Package suitable for automated handling
- Low power loss, high efficiency
- High surge capacity
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: Plastic molded, SMBF
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0018 ounces, 0.05 grams
- Polarity: Color band denotes cathode end



### MAXIMUM RATINGS( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	45	V
Maximum rms voltage	$V_{RMS}$	32	V
Maximum dc blocking voltage	$V_R$	45	V
Maximum average forward rectified current	$I_{F(AV)}$	5	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150	A
Typical thermal resistance	(Note 1) $R_{\theta JL}$	27	$^{\circ}\text{C/W}$
	(Note 1) $R_{\theta JC}$	12	
	(Note 2) $R_{\theta JA}$	135	
Typical junction capacitance ( $V_R=4\text{V}$ , $f=1\text{MHz}$ )	$C_J$	500	pF
Operating junction temperature range	$T_J$	-55 to + 150	$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-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.



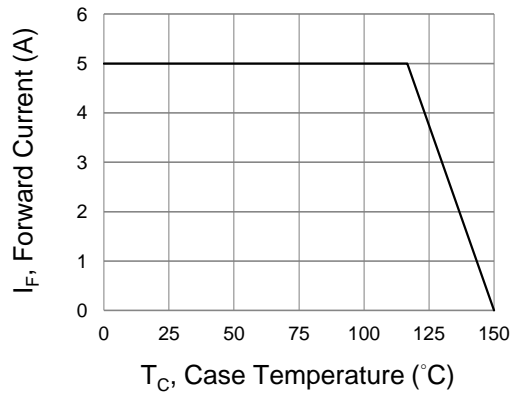
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## ELECTRICAL CHARACTERISTICS( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

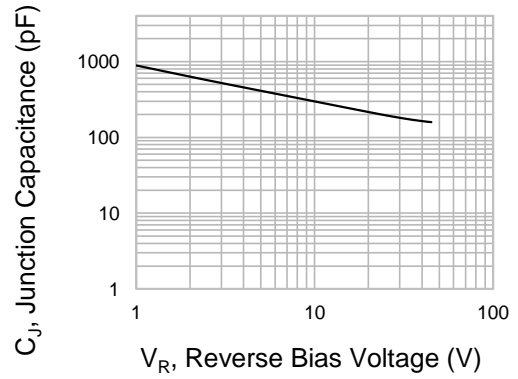
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	$V_{BR}$	$I_R=0.5\text{mA}$ $T_J=25^{\circ}\text{C}$	45	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=1\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.3	-	V
		$I_F=5\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.39	0.43	V
Reverse current	$I_R$	$V_R=36\text{V}$ $T_J=25^{\circ}\text{C}$	-	70	-	$\mu\text{A}$
		$V_R=45\text{V}$ $T_J=25^{\circ}\text{C}$	-	-	210	$\mu\text{A}$
		$V_R=45\text{V}$ $T_J=125^{\circ}\text{C}$	-	19	-	mA



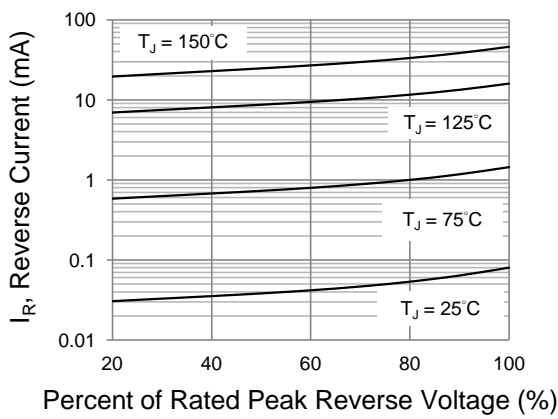
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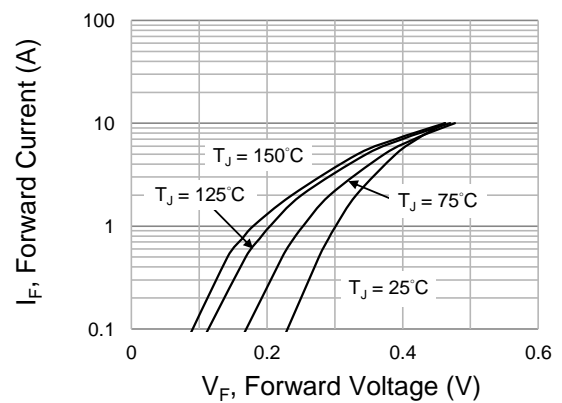
**Fig.1 Forward Current Derating Curve**



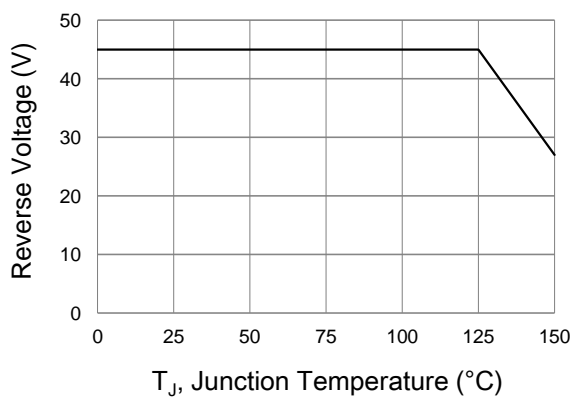
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

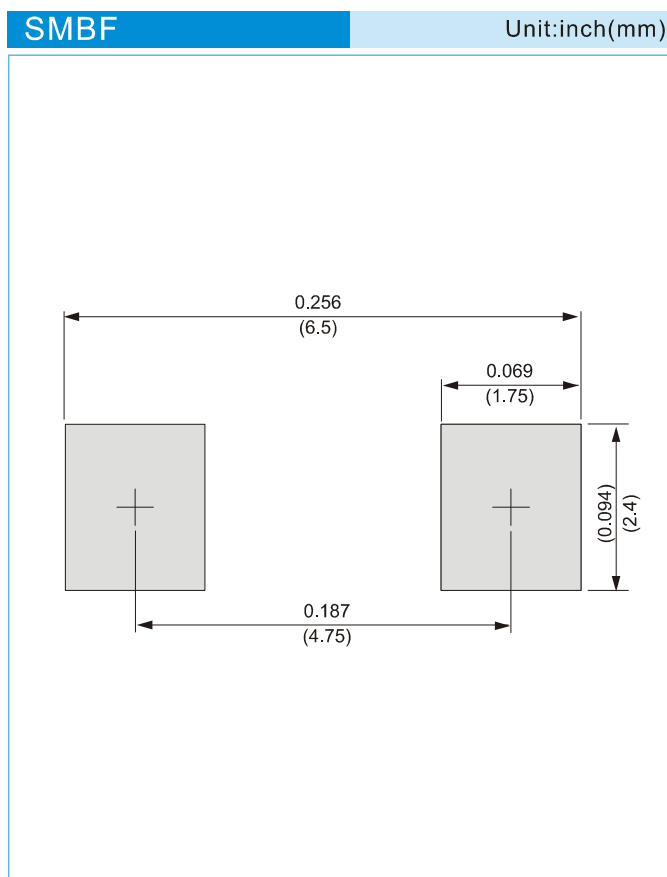


**Fig.5 Operating Temperature Derating Curve**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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



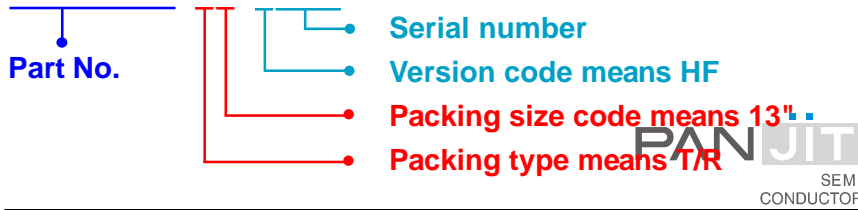
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Part No\_packing code\_Version

SRM54AVF\_R2\_00001

For example :

RB500V-40\_R2\_00001



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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