



# SRM54AV

## ULTRA LOW VF SCHOTTKY

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

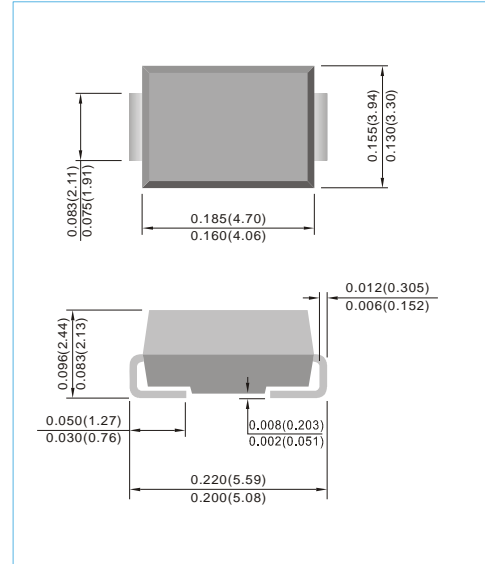
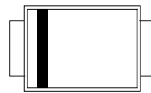
**SMB / DO-214AA** Unit : inch(mm)

### FEATURES

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

### MECHANICAL DATA

- Case : JEDEC DO-214AA molded plastic
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Standard packaging : 12mm tape (EIA-481)
- Weight : 0.0032 ounce, 0.092 gram



### 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	$I_{FSM}$	120	A
Typical thermal resistance (Note 1)	$R_{\theta JA}$	135	$^{\circ}\text{C}/\text{W}$
Typical junction capacitance ( $V_R=4\text{V}$ , $f=1\text{MHz}$ )	$C_J$	350	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 :**

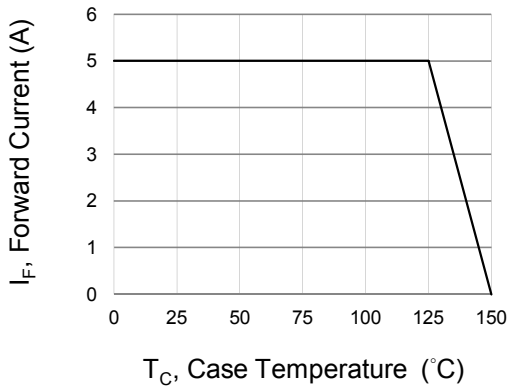
1. Mounted on a FR4 PCB, single-sided copper, mini pad.



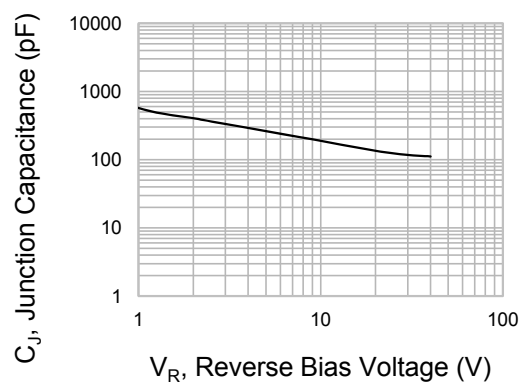
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## ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise noted)

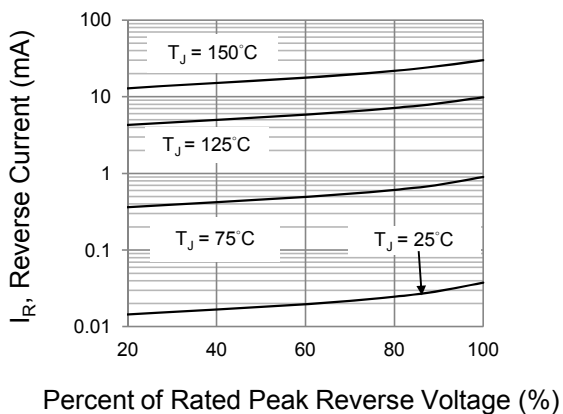
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	$V_{BR}$	$I_R=0.5\text{mA}$	45	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=1\text{A}$ $I_F=5\text{A}$ $T_J=25^\circ\text{C}$	-	0.32 0.43	- 0.49	V
		$I_F=1\text{A}$ $I_F=5\text{A}$ $T_J=125^\circ\text{C}$	-	0.23 0.41	- -	V
Reverse current	$I_R$	$V_R=36\text{V}$	-	25	-	$\mu\text{A}$
		$V_R=45\text{V}$ $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	- -	- 10	210 -	$\mu\text{A}$ mA



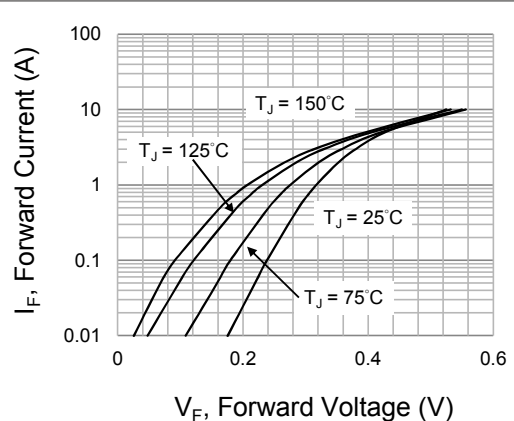
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

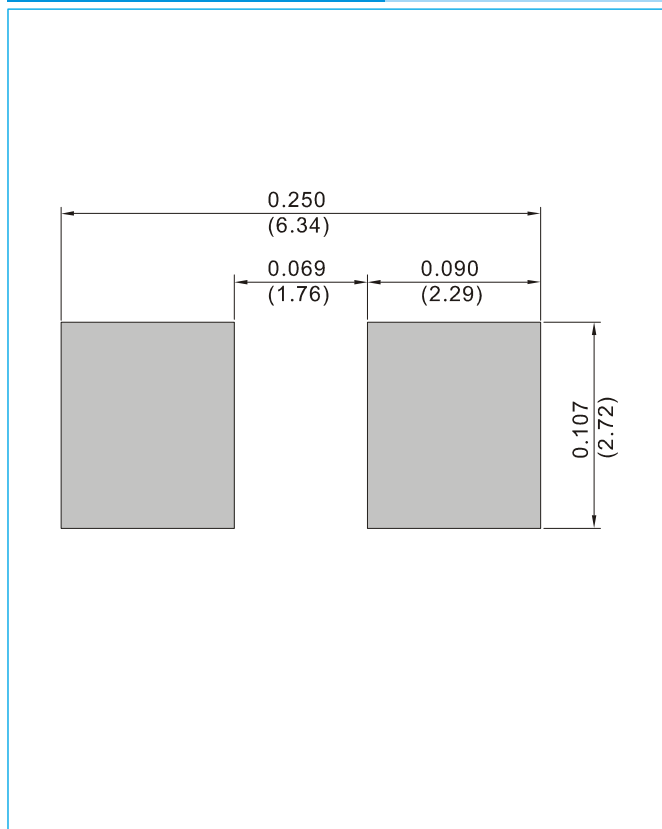


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## MOUNTING PAD LAYOUT

**SMB / DO-214AA**

Unit : inch(mm)



## ORDER INFORMATION

- Packing information
  - T/R - 3K per 13" plastic Reel
  - T/R - 0.5K per 7" plastic Reel



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## Part No\_packing code\_Version

SRM54AV\_R1\_00001

SRM54AV\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



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



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