



# SRM54AV

## ULTRA LOW VF SCHOTTKY

**VOLTAGE**

45 Volt

**CURRENT**

5 Ampere

**SMB / DO-214AA**

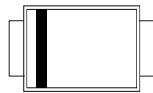
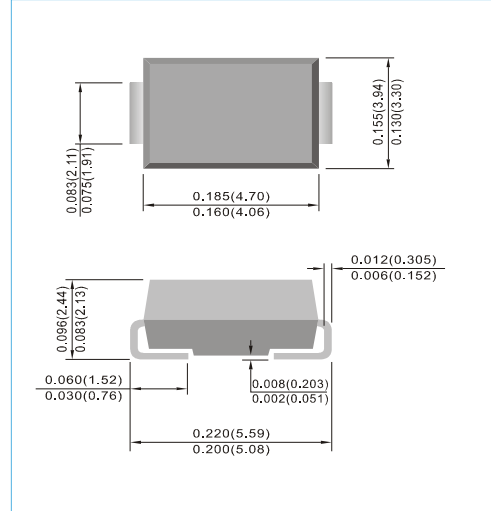
Unit : inch(mm)

### 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 2.0
- Green molding compound as per IEC 61249 standard

### 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 ounces, 0.092 grams



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

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive 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 forward rectified current	I <sub>F(AV)</sub>	5	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	120	A
Typical thermal resistance (Note 1)	R <sub>θJA</sub>	135	°C/W
Typical junction capacitance (V <sub>R</sub> =4V, f=1MHz)	C <sub>J</sub>	350	pF
Operating junction temperature range	T <sub>J</sub>	-55 to + 150	°C
Storage temperature range	T <sub>STG</sub>	-55 to + 150	°C

NOTES :

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



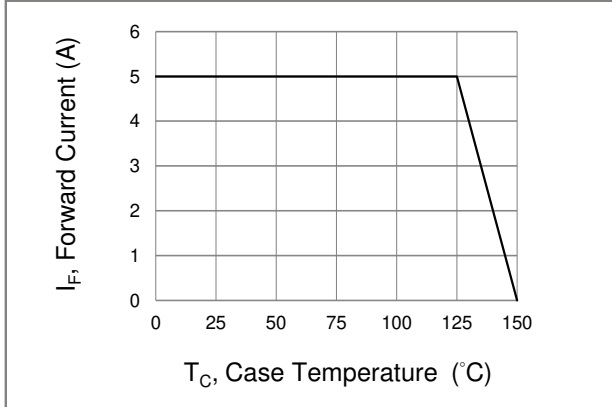
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## ELECTRICAL CHARACTERISTICS(T<sub>A</sub>=25°C unless otherwise noted)

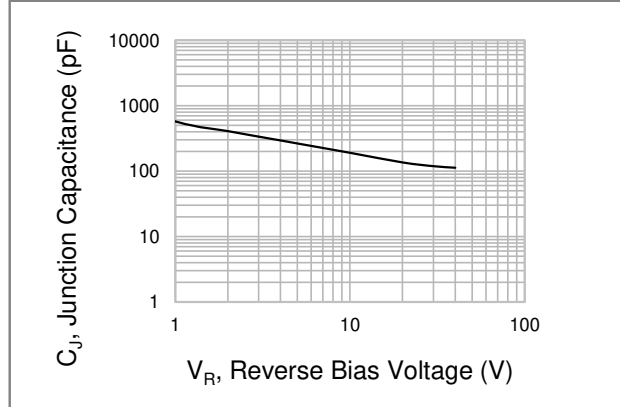
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	V <sub>BR</sub>	I <sub>R</sub> =0.5mA	45	-	-	V
Instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> =1A I <sub>F</sub> =5A T <sub>J</sub> =25°C	- -	0.32 0.43	- 0.49	V
		I <sub>F</sub> =1A I <sub>F</sub> =5A T <sub>J</sub> =125°C	- -	0.23 0.41	- -	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =36V	-	25	-	A
		V <sub>R</sub> =45V T <sub>J</sub> =25°C T <sub>J</sub> =125°C	- -	- 10	210 -	A mA



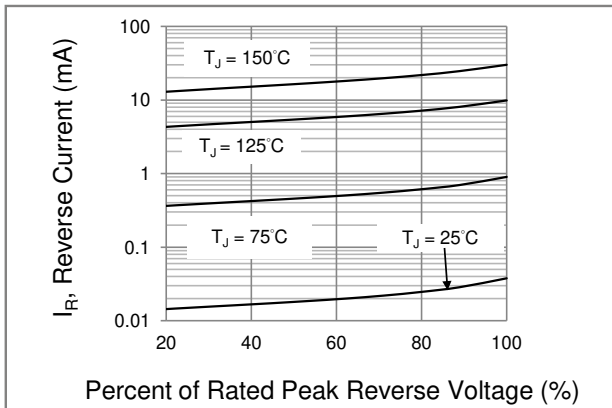
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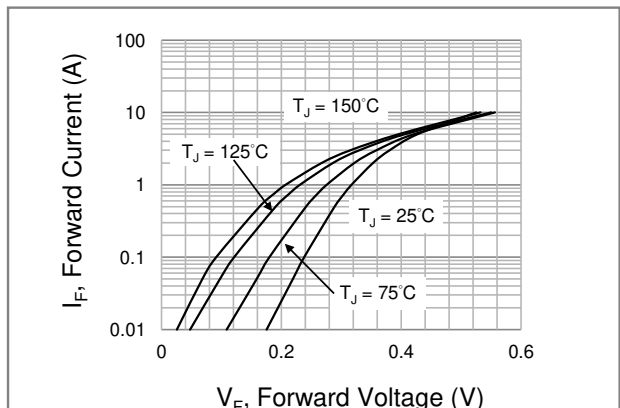
**Fig.1 Forward Current Derating Curve**



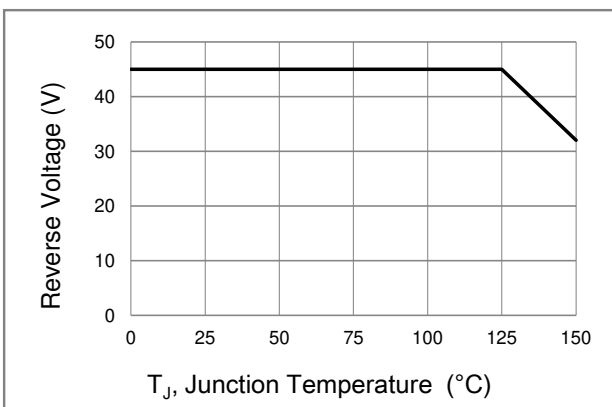
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



**Fig.5 Operating Temperature Derating Curve**

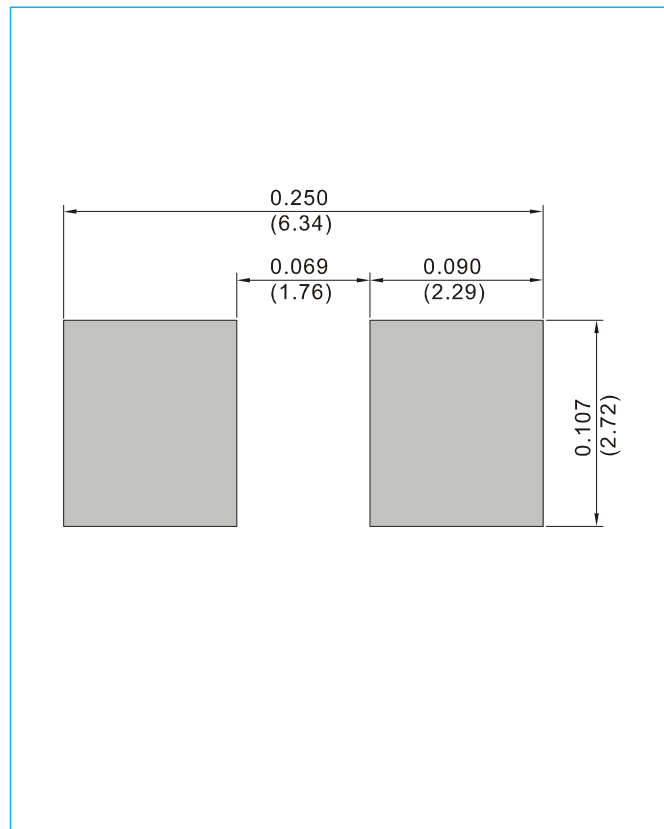


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## MOUNTING PAD LAYOUT

SMB / DO-214AA

Unit : inch(mm)



## ORDER INFORMATION

- Packing information  
T/R - 3K per 13" plastic Reel  
T/R - 0.8K 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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