



# SR24ALF

## LOW VF SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 45 Volt **CURRENT** 2 Ampere

### FEATURES

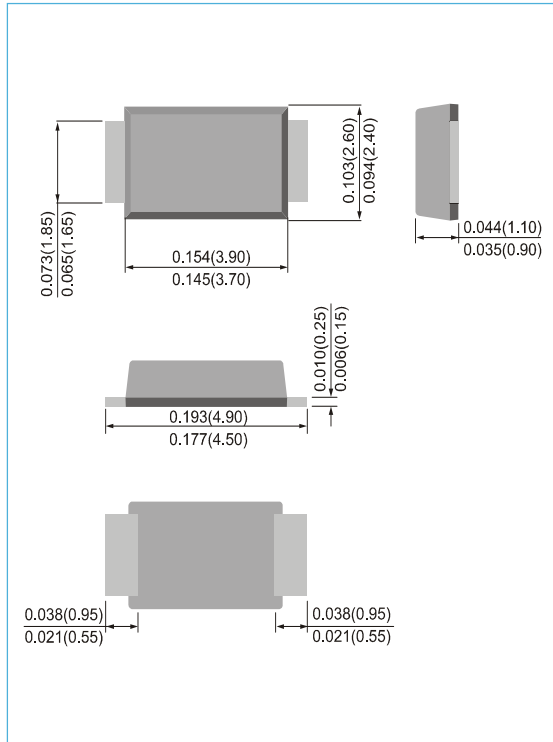
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Low power loss,high efficiency
- High surge capacity
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen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

### MECHANICAL DATA

- Case : SMAF, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0011 ounces, 0.0328 grams
- Marking: SR24ALF



### SMAF Unit : inch(mm)



### ABSOLUTE 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>	31.5	V
Maximum DC Blocking Voltage	V <sub>R</sub>	45	V
Average Rectified Output Current	I <sub>F(AV)</sub>	2	A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	80	A
Typical Thermal Resistance, Junction to Lead (Note 1)	R <sub>θJL</sub>	20	°C/W
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to + 150	°C

### NOTES:

1. Mounted on 48cm<sup>2</sup> FR-4 PCB .



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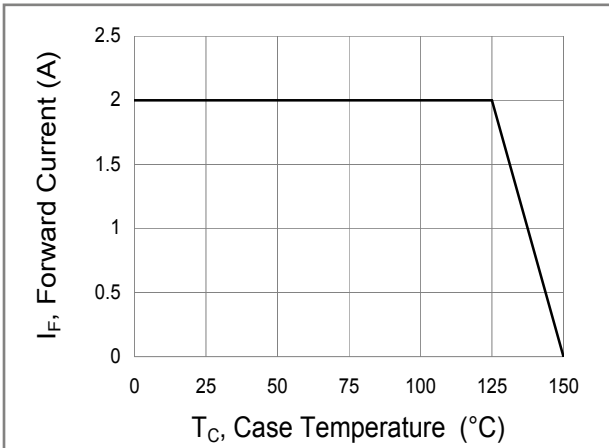
## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	V <sub>BR</sub>	I <sub>R</sub> =1mA T <sub>A</sub> =25°C	45	-	-	V
Instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> =1A T <sub>A</sub> =25°C	-	0.40	-	V
		I <sub>F</sub> =1.5A T <sub>A</sub> =25°C	-	0.42	-	
		I <sub>F</sub> =2A T <sub>A</sub> =25°C	-	0.45	0.47	
		I <sub>F</sub> =1A T <sub>A</sub> =125°C	-	0.28	-	V
I <sub>F</sub> =1.5A T <sub>A</sub> =125°C	-	0.32	-			
I <sub>F</sub> =2A T <sub>A</sub> =125°C	-	0.36	-			
Reverse current	I <sub>R</sub>	V <sub>R</sub> =36V T <sub>A</sub> =25°C	-	9.2	-	μA
		V <sub>R</sub> =45V T <sub>A</sub> =25°C T <sub>A</sub> =125°C	- -	- 12	100 -	μA mA

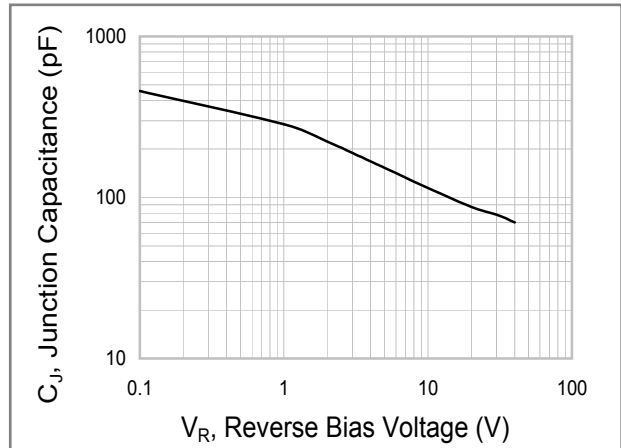


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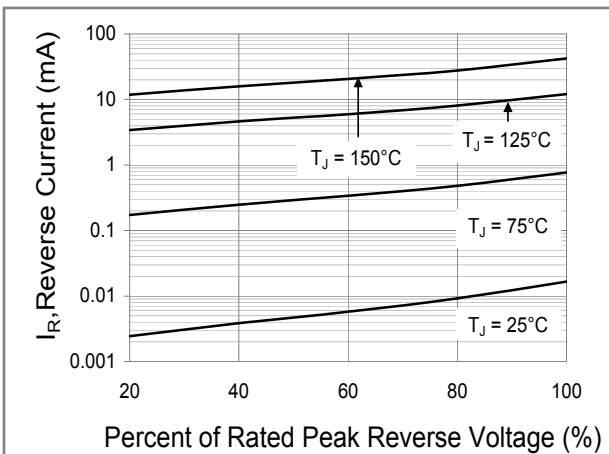
## RATING AND CHARACTERISTIC CURVES



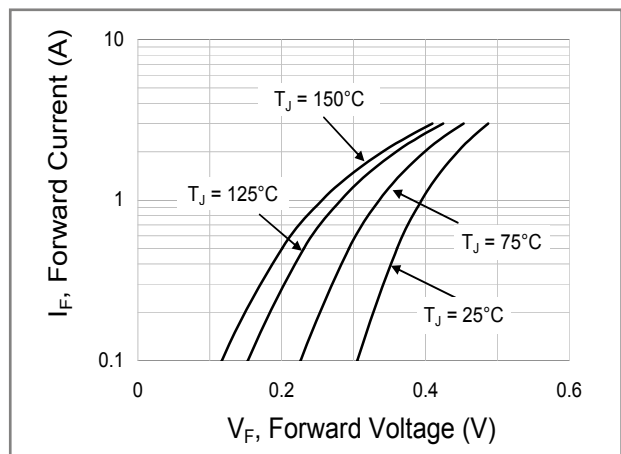
**Fig.1 Forward Current Derating Curve**



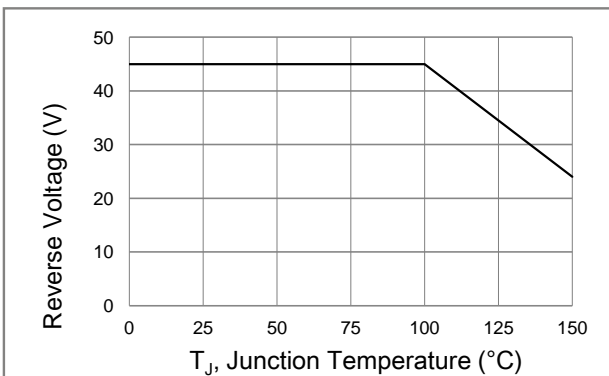
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

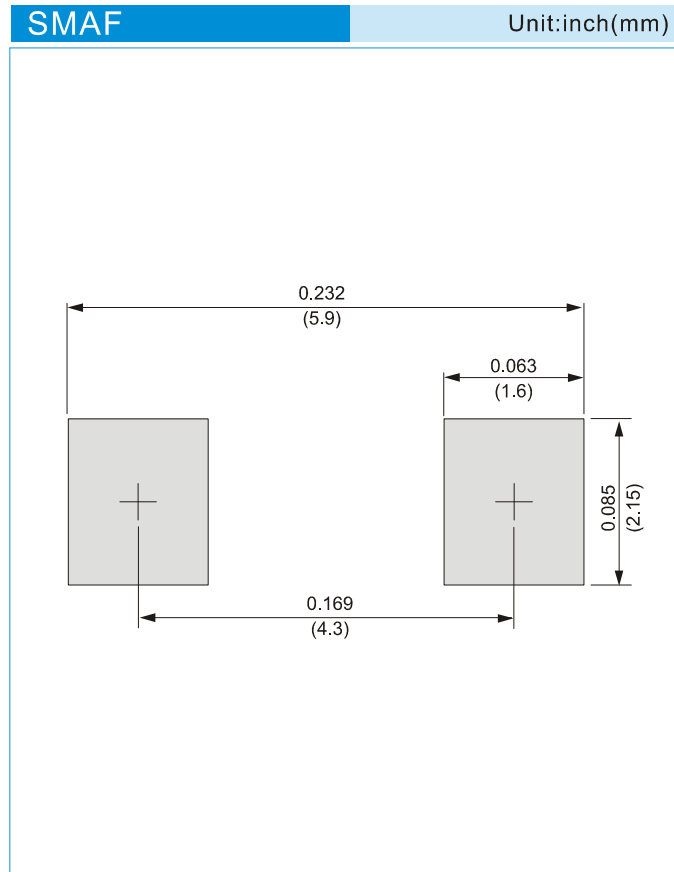


**Fig.5 Operating Temperature Derating Curve**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 10K per 13" plastic Reel  
T/R - 3K per 7" plastic Reel



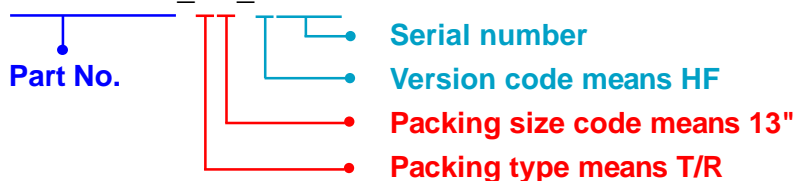
# SR24ALF

Part No\_packing code\_Version

SR24ALF\_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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