



# SX52F SERIES

## SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 20-45 Volt **CURRENT** 5 Ampere

### FEATURES

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

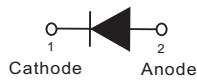
### MECHANICAL DATA

Case : SMAF, Plastic

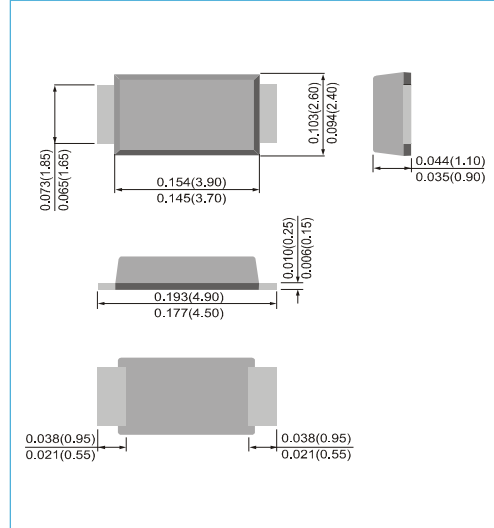
Terminals : Solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

Weight : 0.0011 ounces, 0.0324 grams



**SMAF** Unit : inch(mm)



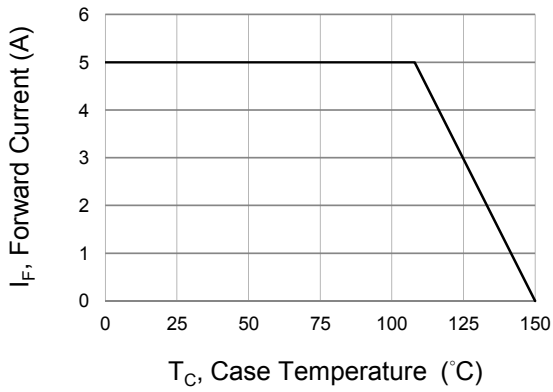
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	SX52F	SX53F	SX54F	SX54AF	UNITS
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	45	V
RMS Voltage	V <sub>RMS</sub>	14	21	28	31	V
DC Blocking Voltage	V <sub>R</sub>	20	30	40	45	V
Average Forward 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>	100				A
Forward Voltage at 5A	V <sub>F</sub>	0.54				V
DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> =25°C	I <sub>R</sub>	100			150	μA
Typical Junction Capacitance V <sub>R</sub> =10V, 1MHz	C <sub>J</sub>	159				pF
Typical Thermal Resistance ,Junction to Lead (Note 1) Junction to Ambient (Note 1)	R <sub>θJL</sub> R <sub>θJA</sub>	20 83				°C/W
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150				°C

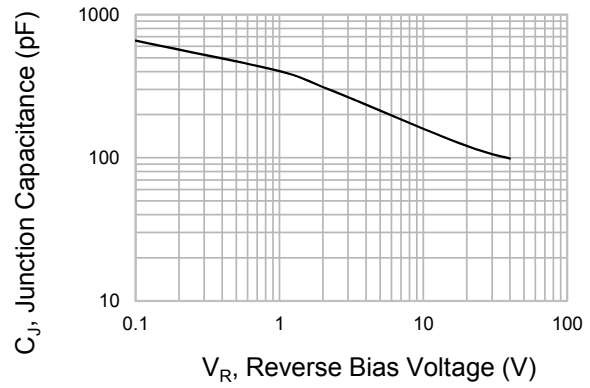
NOTES : 1. Mounted on 48cm<sup>2</sup> FR-4 PCB.



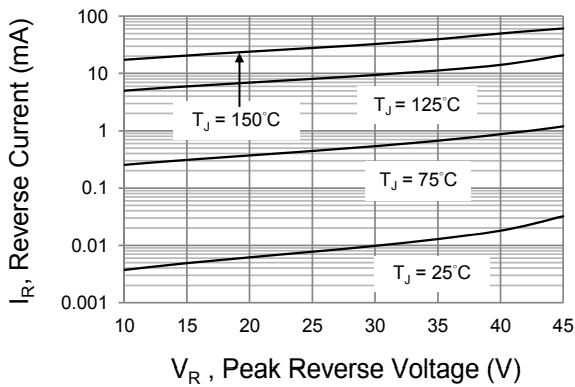
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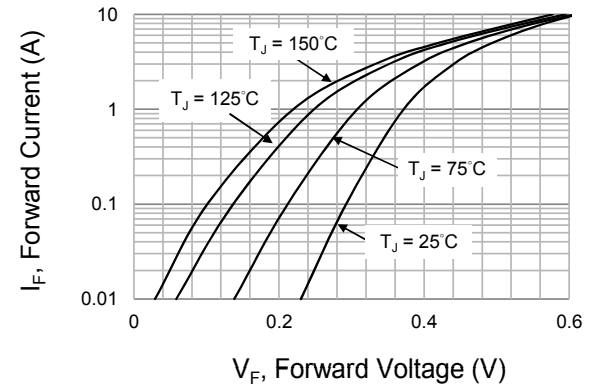
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**

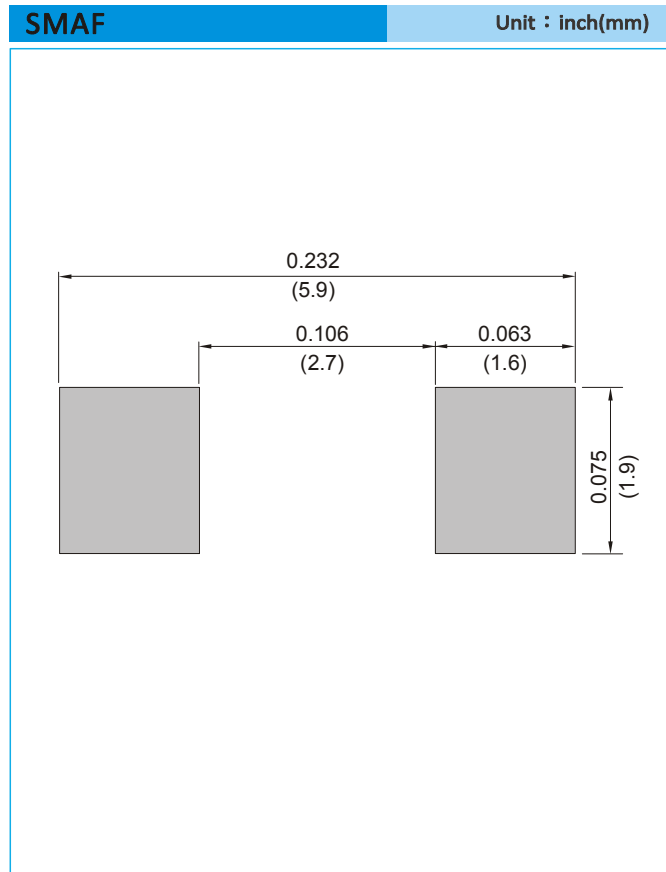


**Fig.4 Typical Forward Characteristics**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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



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## Part No\_packing code\_Version

SX52F\_R1\_00001

SX52F\_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)	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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