



# SX52F~SX56F

## SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 20-60 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 RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

Case : SMAF, Plastic

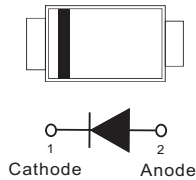
Terminals : Solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

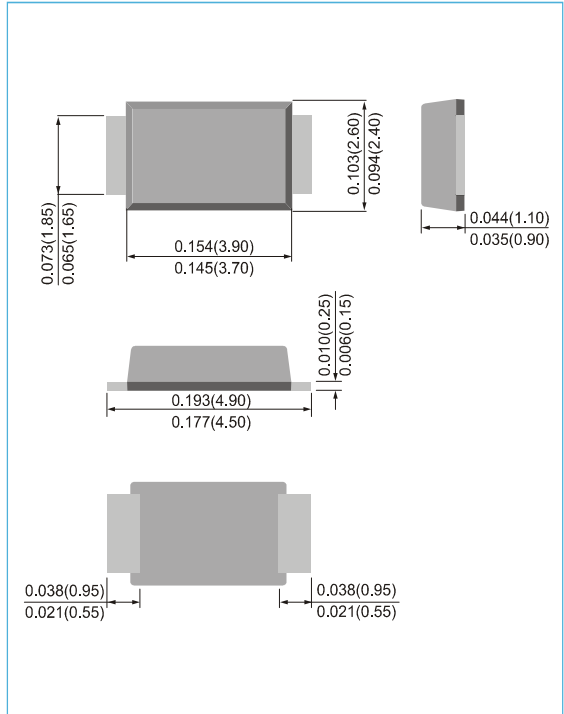
Standard packaging : 12mm tape (EIA-481)

Weight : 0.0012 ounces, 0.0328 grams

Marking : Part number



**SMAF** Unit : inch(mm)



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

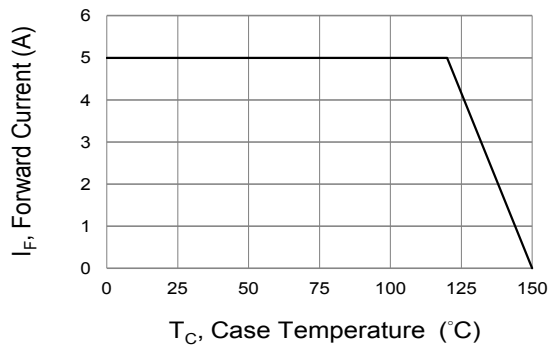
PARAMETER	SYMBOL	SX52F	SX53F	SX54F	SX54AF	SX56F	UNITS
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	45	60	V
RMS Voltage	V <sub>RMS</sub>	14	21	28	31	42	V
DC Blocking Voltage	V <sub>R</sub>	20	30	40	45	60	V
Average Forward Current	I <sub>F(AV)</sub>	5					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	100					A
Forward Voltage at 5A	V <sub>F</sub>	0.54				0.66	V
DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> =25°C	I <sub>R</sub>	100			150	100	μA
DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> =100°C	I <sub>R</sub>	30				20	mA
Typical Junction Capacitance V <sub>R</sub> =10V, 1MHz	C <sub>J</sub>	159				125	pF
Typical Thermal Resistance (Note 1) (Note 2)	R <sub>θJA</sub> R <sub>θJL</sub>	150 15					°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 a FR4 PCB, single-sided copper, mini pad.

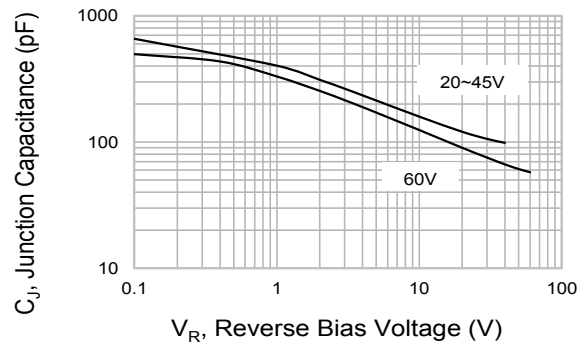
2.Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area



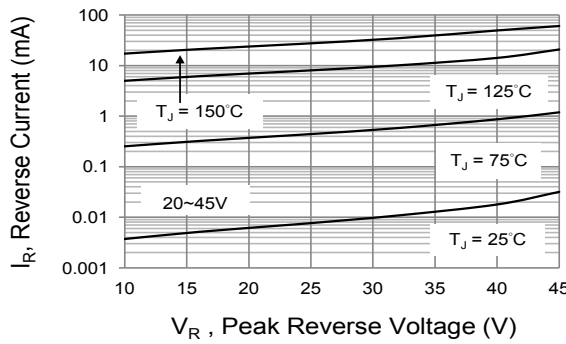
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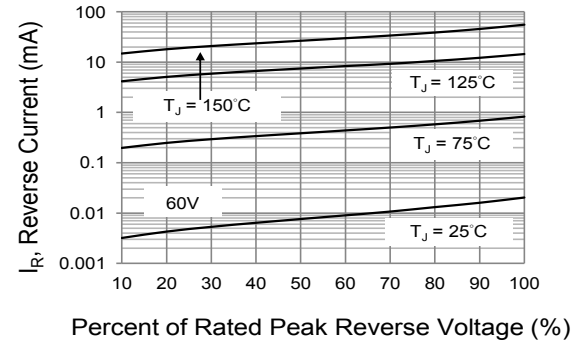
**Fig.1 Forward Current Derating Curve**



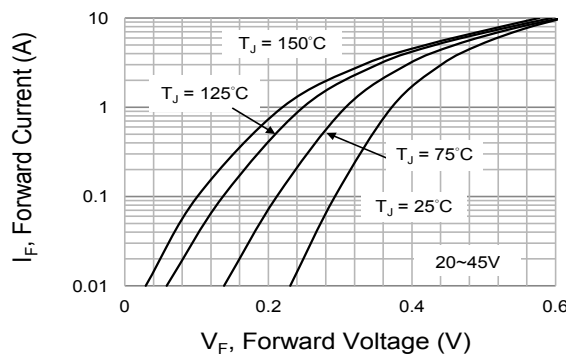
**Fig.2 Typical Junction Capacitance**



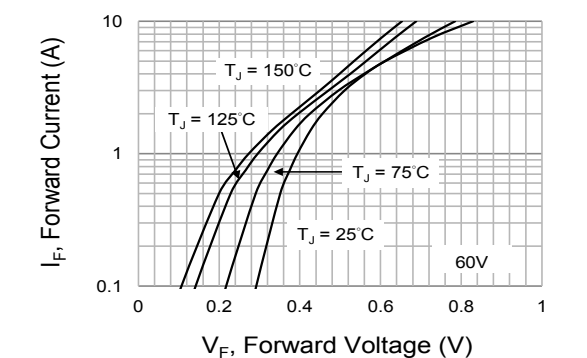
**Fig.3 Typical Reverse Characteristics**



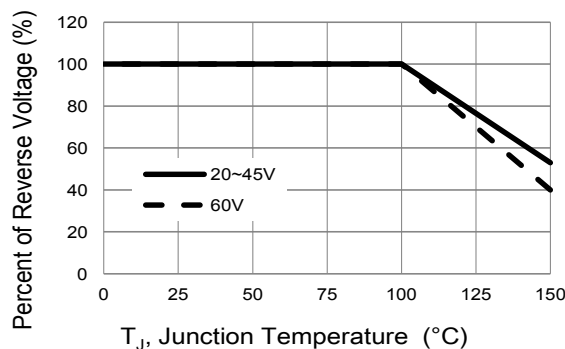
**Fig.4 Typical Reverse Characteristics**



**Fig.5 Typical Forward Characteristics**



**Fig.6 Typical Forward Characteristics**



**Fig.7 Operating Temperature Derating Curve**

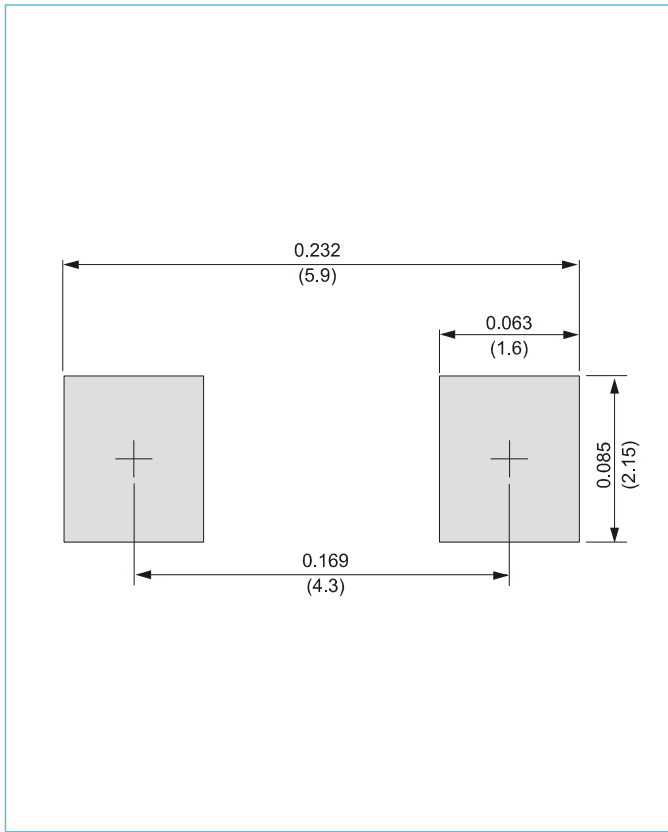


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## MOUNTING PAD LAYOUT

SMAF

Unit:inch(mm)



## ORDER INFORMATION

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



# SX52F~SX56F

## 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)	<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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