

# SR52F SERIES

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

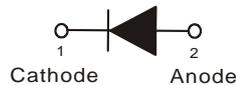
**VOLTAGE** 20-60 Volt **CURRENT** 5 Ampere

### FEATURES

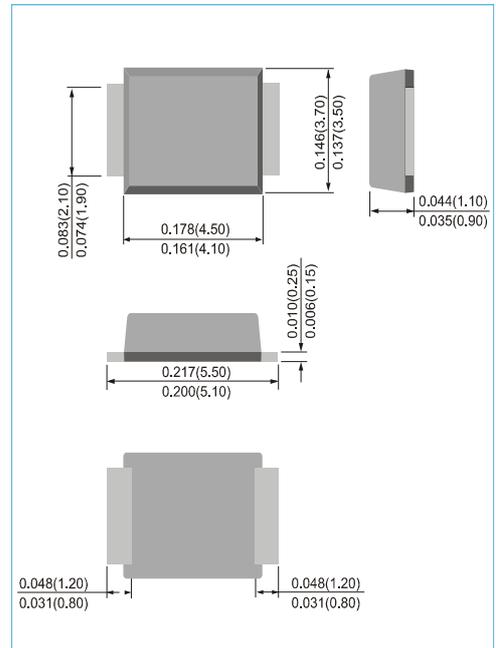
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications in order to optimize board space
- Low profile package
- Low power loss,high efficiency
- High surge capacity
- Easy pick and place package suitable for automated handling
- Lead free in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

### MECHANICAL DATA

- Case: SMBF molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Approx. Weight: 0.0018 ounces, 0.05 grams
- Polarity : Color band denotes cathode end



**SMBF** Unit : inch(mm)



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

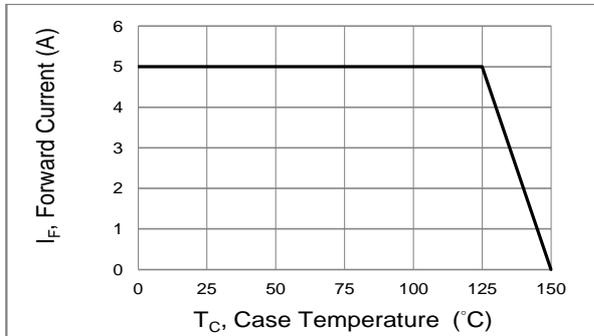
PARAMETER	SYMBOL	SR52F	SR53F	SR54F	SR55F	SR56F	UNITS
Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	V
RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	V
DC Blocking Voltage	V <sub>R</sub>	20	30	40	50	60	V
Average Forward Current	I <sub>F(AV)</sub>	5.0					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	100					A
Forward Voltage at 5.0A	V <sub>F</sub>	0.55			0.7		V
DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	0.1					mA
Typical Junction capacitance	C <sub>J</sub>	235			190		pF
Typical Thermal Resistance ,Junction to Lead (Note 1) Junction to Ambient (Note 2)	R <sub>θJL</sub> R <sub>θJA</sub>	17 135					°C / W
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150					°C

### NOTES :

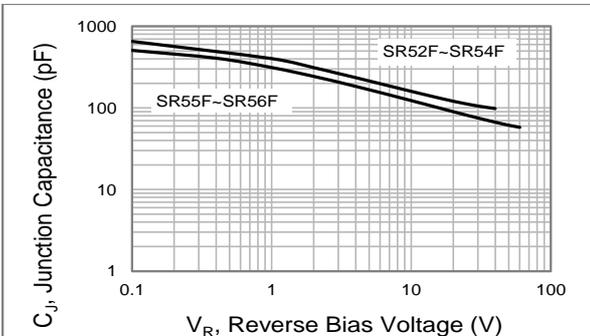
- 1.Mounted on a FR4 PCB, single-sided copper, with 48cm<sup>2</sup>copper pad area.
- 2.Mounted on a FR4 PCB, single-sided copper, mini pad.

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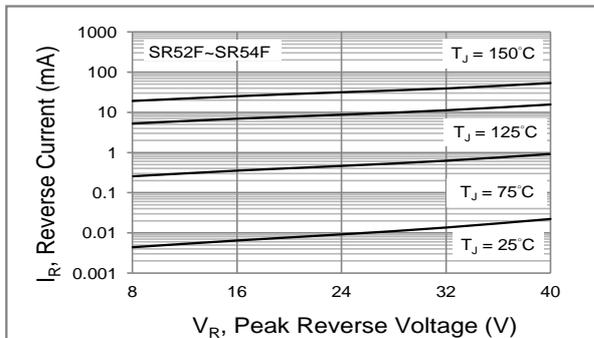
## RATING AND CHARACTERISTIC CURVES



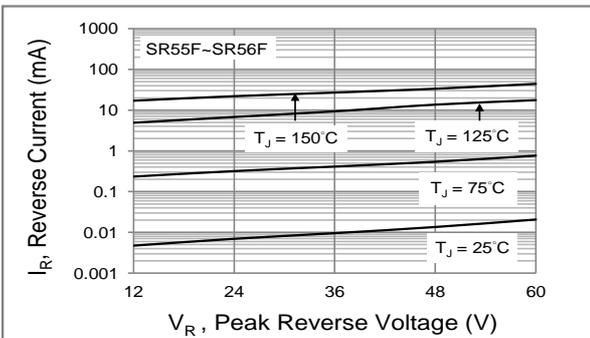
**Fig.1 Forward Current Derating Curve**



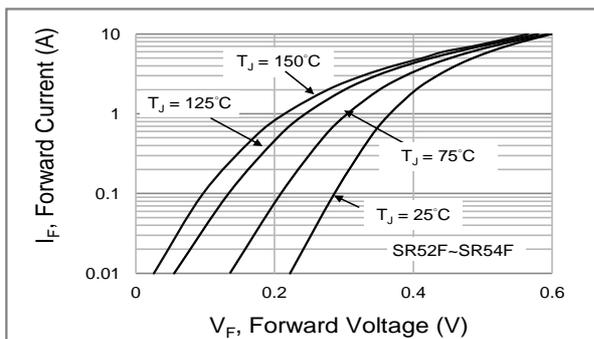
**Fig.2 Typical Junction Capacitance**



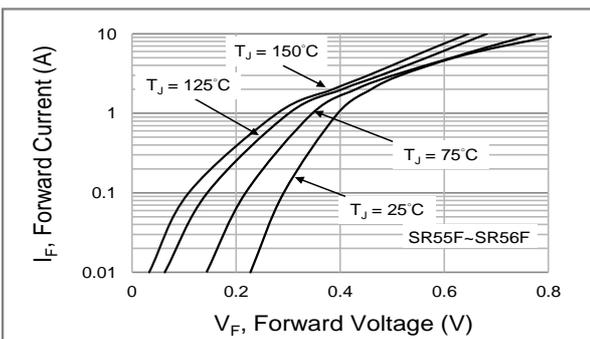
**Fig.3 Typical Reverse Characteristics**



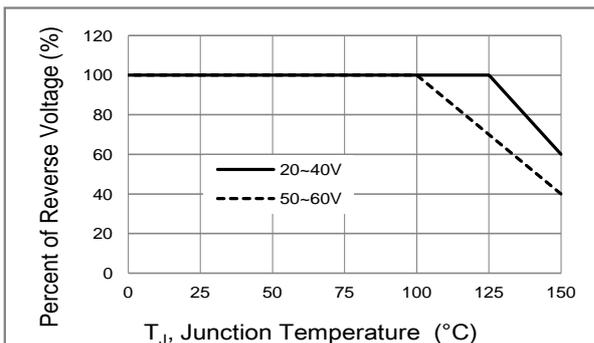
**Fig.4 Typical Reverse Characteristics**



**Fig.5 Typical Forward Characteristics**



**Fig.6 Typical Forward Characteristics**



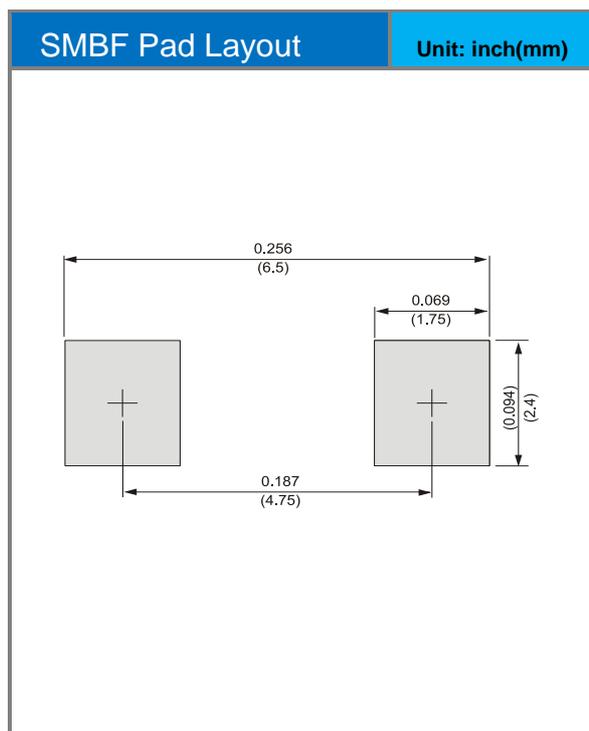
**Fig.7 Operating Temperature Derating Curve**

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## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SR52F	SMBF	1.5K pcs / 7" reel	SR52F
SR52F	SMBF	5K pcs / 13" reel	SR52F
SR53F	SMBF	1.5K pcs / 7" reel	SR53F
SR53F	SMBF	5K pcs / 13" reel	SR53F
SR54F	SMBF	1.5K pcs / 7" reel	SR54F
SR54F	SMBF	5K pcs / 13" reel	SR54F
SR55F	SMBF	1.5K pcs / 7" reel	SR55F
SR55F	SMBF	5K pcs / 13" reel	SR55F
SR56F	SMBF	1.5K pcs / 7" reel	SR56F
SR56F	SMBF	5K pcs / 13" reel	SR56F

## Mounting Pad Layout



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