



# SR52F SERIES

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 20-60 Volts **CURRENT** 5 Amperes

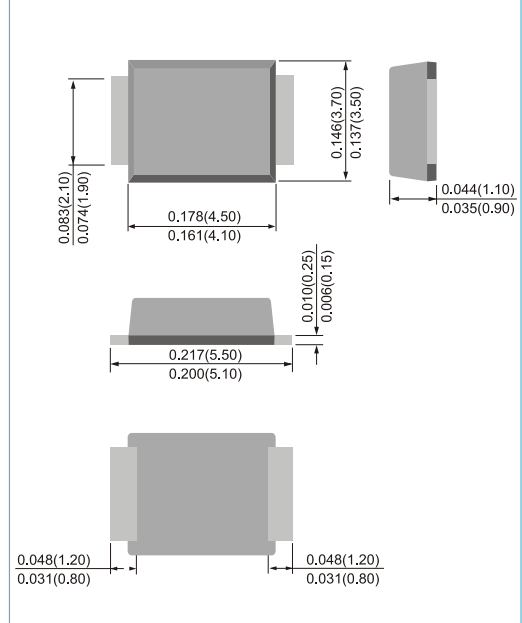
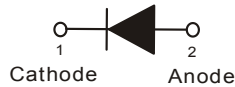
**SMBF** Unit : inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Lead free in comply with EU RoHS 2011/65/EU directives.
- 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



### 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(JEDEC method)	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 an FR4 PCB, single-sided copper, with 48cm<sup>2</sup> copper pad area.
2. Mounted on an FR4 PCB, single-sided copper, mini pad.



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## RATING AND CHARACTERISTIC CURVES

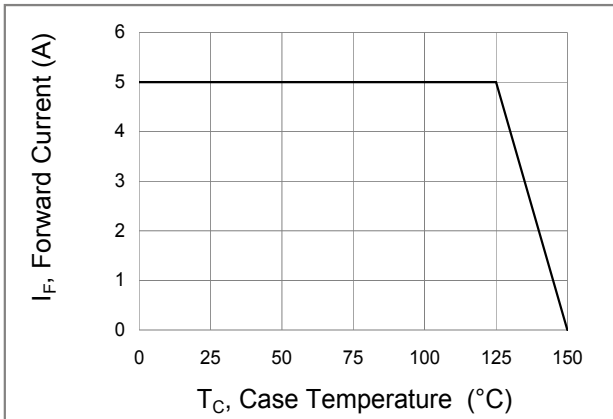


Fig.1 Forward Current Derating Curve

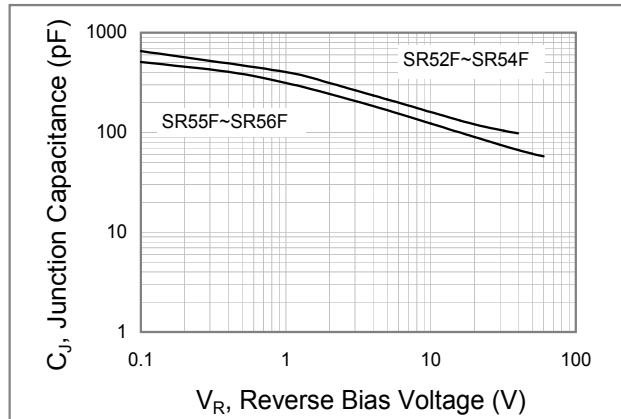


Fig.2 Typical Junction Capacitance

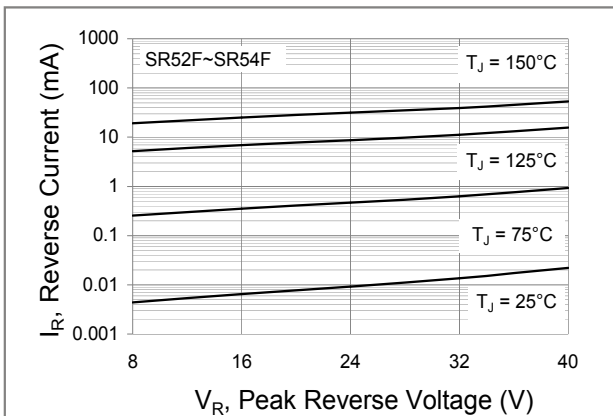


Fig.3 Typical Reverse Characteristics

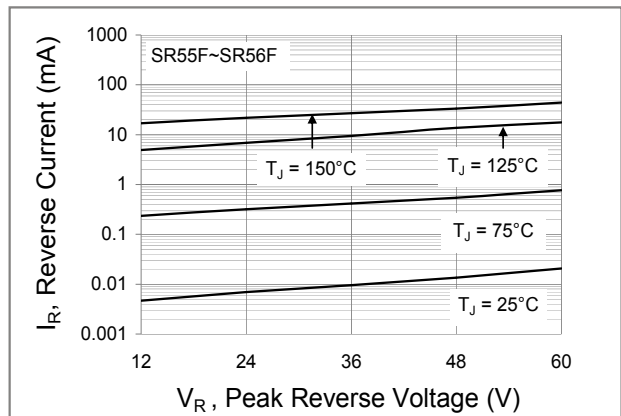


Fig.4 Typical Reverse Characteristics

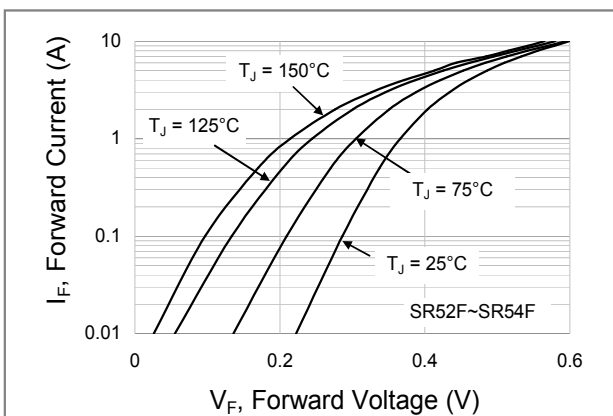


Fig.5 Typical Forward Characteristics

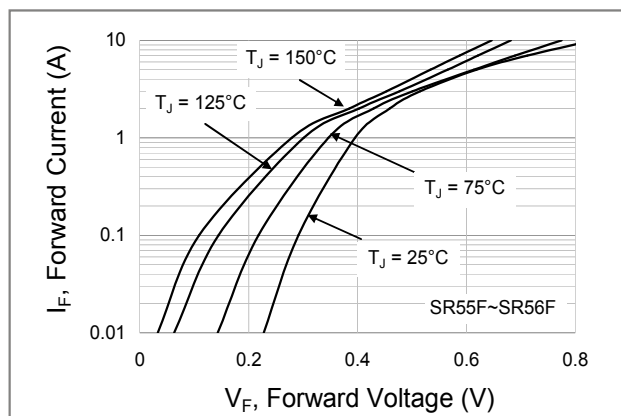


Fig.6 Typical Forward Characteristics