



### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

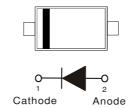
VOLTAGE 20-60 Volt CURRENT 5 Ampere

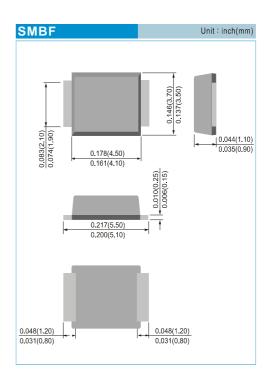
#### **FEATURES**

- 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





## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=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 $I_{F(AV)}$ 5.0					l	Α	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	100					А
Forward Voltage at 5.0A	V <sub>F</sub>	0.55 0.7			V		
DC Reverse Current at Rated DC Blocking Voltage  T <sub>J</sub> =25°C	I <sub>R</sub>	0.1				mA	
Typical Junction capacitance VR=4V,1MHz	CJ	235 190		90	pF		
Typical Thermal Resistance ,Junction to Lead (Note 1)  Junction to Ambient (Note 2)	$R_{\theta JL} R_{\theta JA}$	17 135					°C / W
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150				°C	

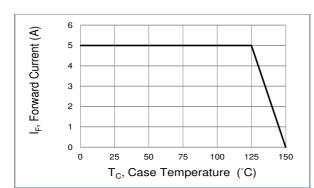
### NOTES:

- 1. Mounted on a FR4 PCB, single-sided copper, with  $48 \text{cm}^2 \text{copper}$  pad area.
- 2. Mounted on a FR4 PCB, single-sided copper, mini pad.





### **RATING AND CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 

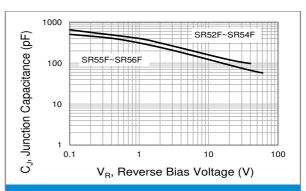


Fig.2 Typical Junction Capacitance

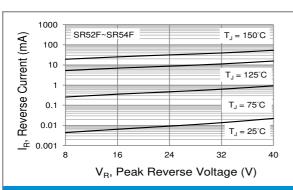


Fig.3 Typical Reverse Characteristics

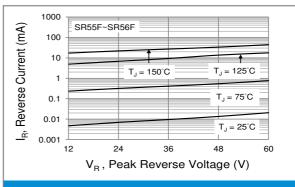
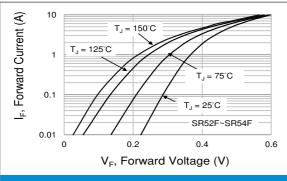
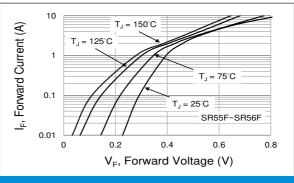


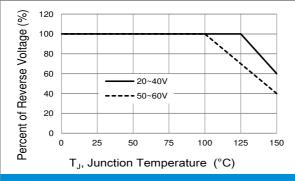
Fig.4 Typical Reverse Characteristics



**Fig.5 Typical Forward Characteristics** 



**Fig.6 Typical Forward Characteristics** 

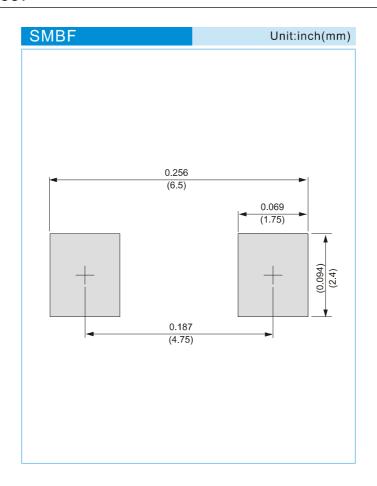


**Fig.7 Operating Temperature Derating Curve** 





## MOUNTING PAD LAYOUT



## **ORDER INFORMATION**

• Packing information

T/R - 5K per 13" plastic Reel

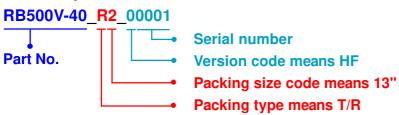




## Part No\_packing code\_Version

SR52F\_R1\_00001 SR52F\_R2\_00001

## For example:



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)	Α	N/A	0	HF	0	serial number			
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number			
Bulk Packing (B/P)	В	13"	2						
Tube Packing (T/P)	Т	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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