



SR510VF

ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

VOLTAGE	100 Volt	CURRENT	5 Ampere
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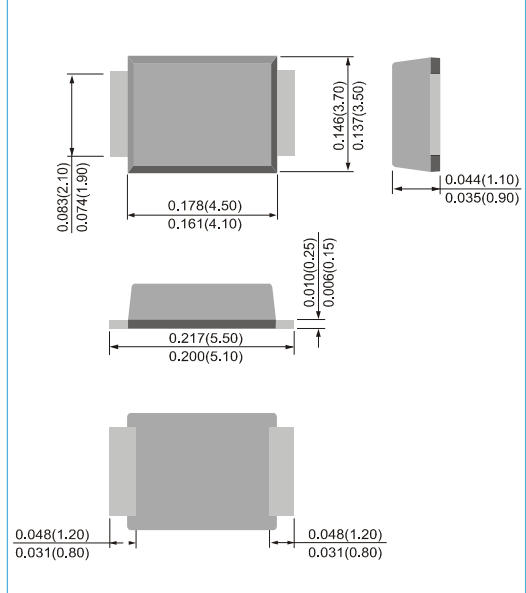
SMBF Unit : inch(mm)

FEATURES

- Ideal for automated placement
- Ultra low forward voltage drop, low power loss
- High efficiency Operation
- Low thermal resistance
- Ultra thin profile package for space constrained utilization
- 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 plastic molded
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0018 ounces, 0.05 grams
- Polarity: Color band denotes cathode end
- Marking: Part number



MAXIMUM RATINGS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	100	V
Maximum RMS Voltage	V _{RMS}	70	V
Maximum DC Blocking Voltage	V _R	100	V
Average Rectified Output Current	I _{F(AV)}	5	A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	100	A
Typical Junction Capacitance (V _R =4V, f=1MHz)	C _J	340	pF
Typical Thermal Resistance	(Notes 1) R _{θJA} (Notes 2) R _{θJC}	135 10	°C/W
Operating Junction Temperature and Storage Temperature range	T _J , T _{STG}	-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 100cm² copper pad area.



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ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Break down voltage	V _{BR}	I _R =0.5mA T _A =25°C	100	-	-	V
Instantaneous forward voltage	V _F	I _F =1A T _A =25°C	-	0.44	-	V
		I _F =3A T _A =25°C	-	0.58	-	
		I _F =5A T _A =25°C	-	-	0.7	
		I _F =1A T _A =125°C	-	0.35	-	V
Reverse current	I _R	V _R =70V T _A =25°C	-	5	-	μA
		V _R =100V T _A =25°C T _A =125°C	- -	- 20	50 -	μA mA



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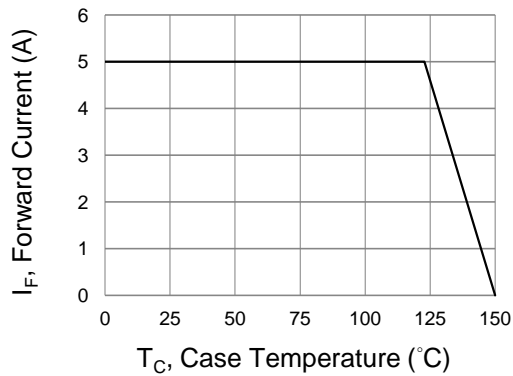


Fig.1 Forward Current Derating Curve

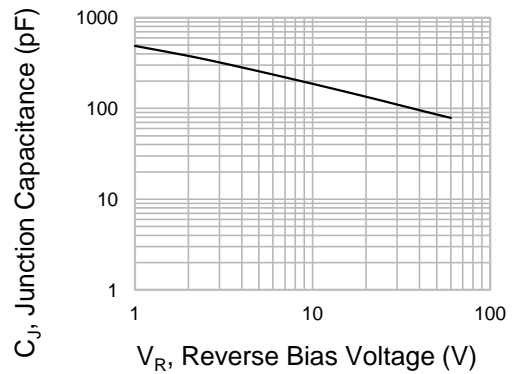


Fig.2 Typical Junction Capacitance

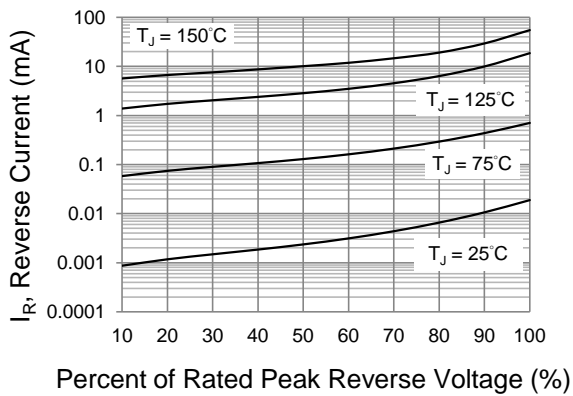


Fig.3 Typical Reverse Characteristics

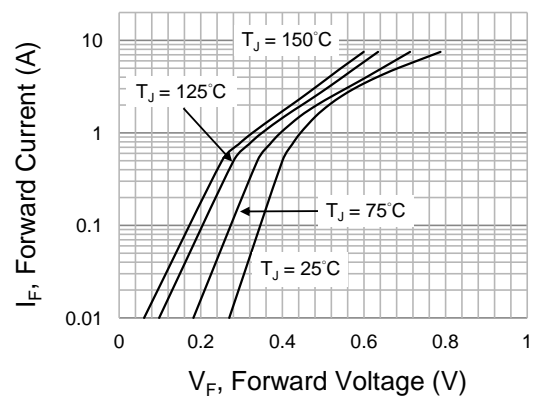


Fig.4 Typical Forward Characteristics

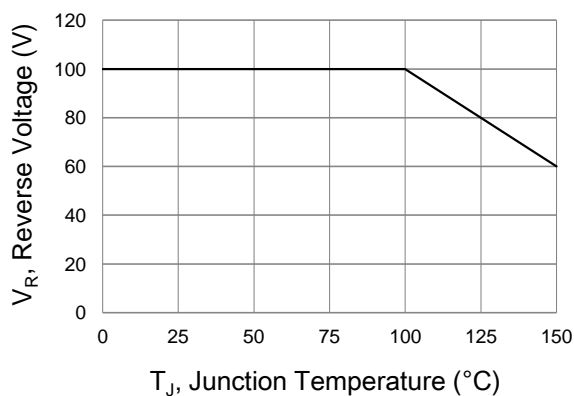
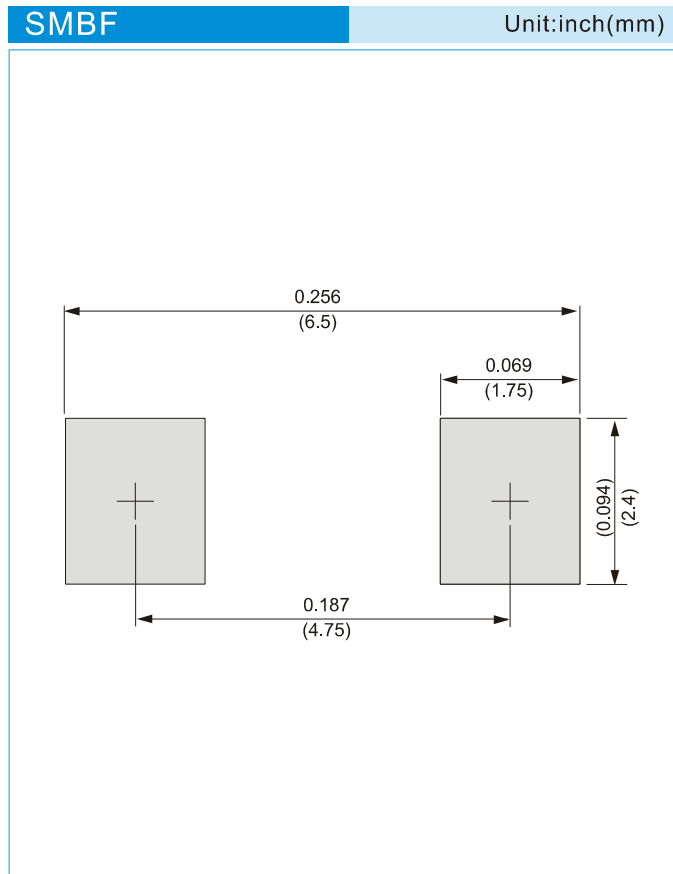


Fig.5 Operating Temperature Derating Curve



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 5K per 13" plastic Reel



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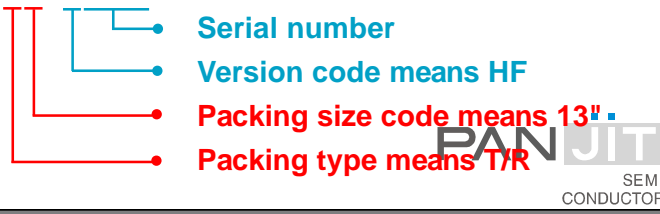
Part No_packing code_Version

SR510VF_R2_00001

For example :

RB500V-40_R2_00001

Part No.



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd -5 th 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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