



MS18F SERIES

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE 80-200 Volts **CURRENT** 1 Ampere

SMAF Unit : inch(mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- 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
- High current capacity ,low V_F
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Lead free in comply with EU RoHS 2002/95/EC directives
- Green molding compound as per IEC61249 Std. . (Halogen Free)

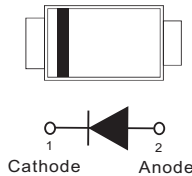
MECHANICAL DATA

Case : SMAF, Plastic

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

Polarity : Color band denotes cathode end

Weight: 0.0011 ounces, 0.0328 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	MS18F	MS19F	MS110F	MS115F	MS120F	UNITS
Recurrent Peak Reverse Voltage	V_{RRM}	80	90	100	150	200	V
RMS Voltage	V_{RMS}	56	63	70	105	140	V
DC Blocking Voltage	V_R	80	90	100	150	200	V
Average Forward Current	$I_{F(AV)}$	1					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30					A
Forward Voltage at 1A	V_F	0.8			0.9		V
DC Reverse Current at Rated DC Blocking Voltage	I_R	0.05					mA
Typical Junction Capacitance ($V_R=4V, f=1\text{MHz}$)	C_J	50			40	30	pF
Typical Thermal Resistance ,Junction to Ambient (Note 1) Junction to Lead (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	150 19					$^{\circ}\text{C/W}$
Operating Junction Temperature and Storage Temperature Range	T_J, T_{STG}	-55 to +150					$^{\circ}\text{C}$

NOTES : 1. Mounted on an FR4 PCB, single-sided copper, mini pad.
2. Mounted on an FR4 PCB, single-sided copper, with 48cm² copper pad area



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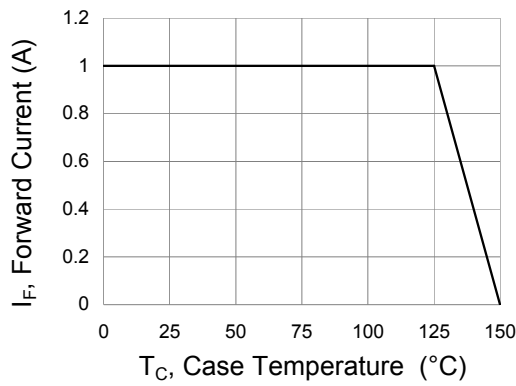


Fig.1 Forward Current Derating Curve

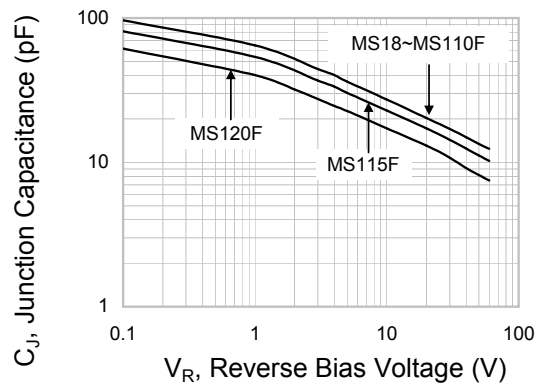


Fig.2 Typical Junction Capacitance

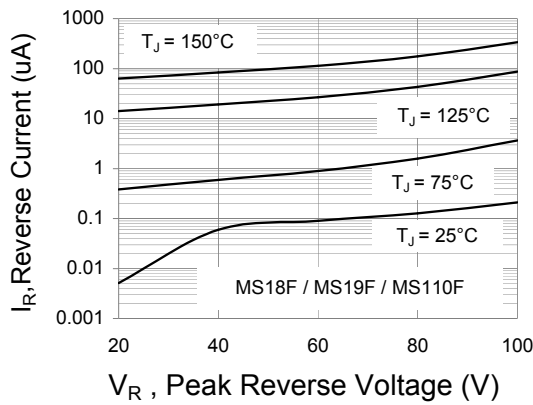


Fig.3 Typical Reverse Characteristics

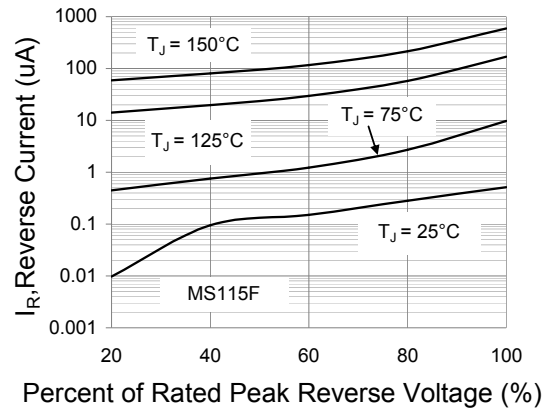


Fig.4 Typical Reverse Characteristics

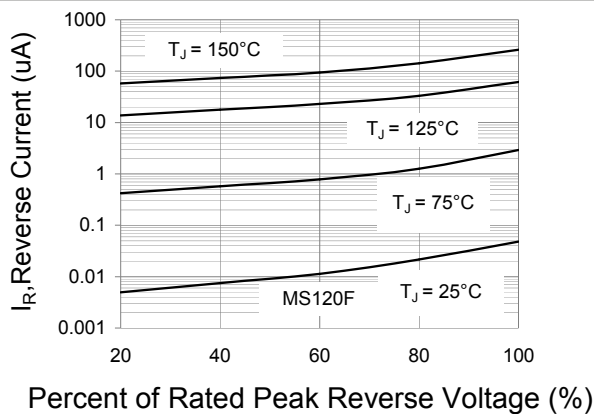


Fig.5 Typical Reverse Characteristics

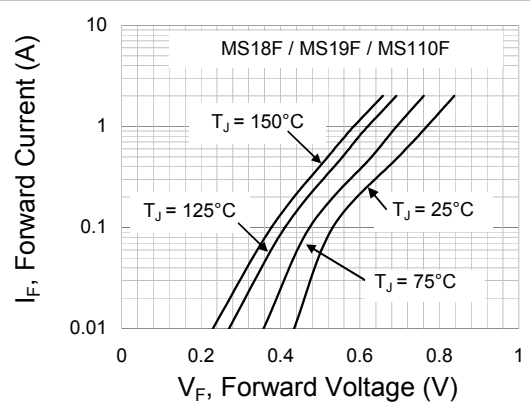


Fig.6 Typical Forward Characteristics



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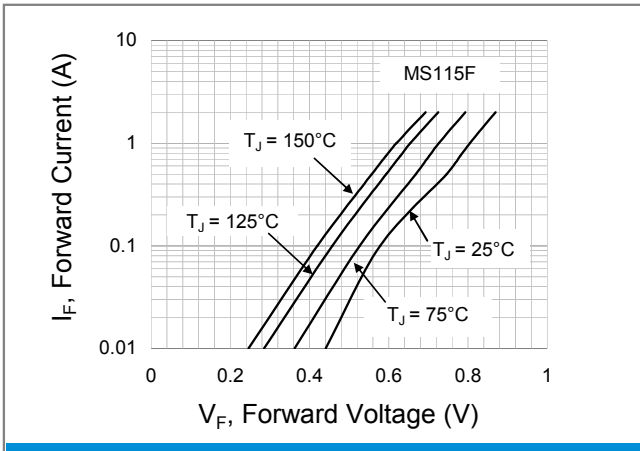


Fig.7 Typical Forward Characteristics

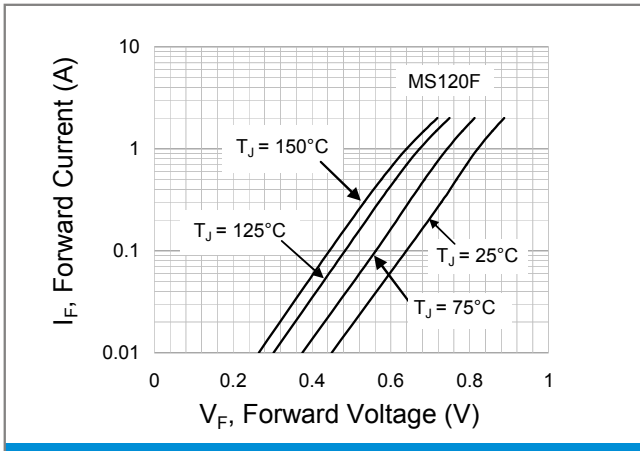
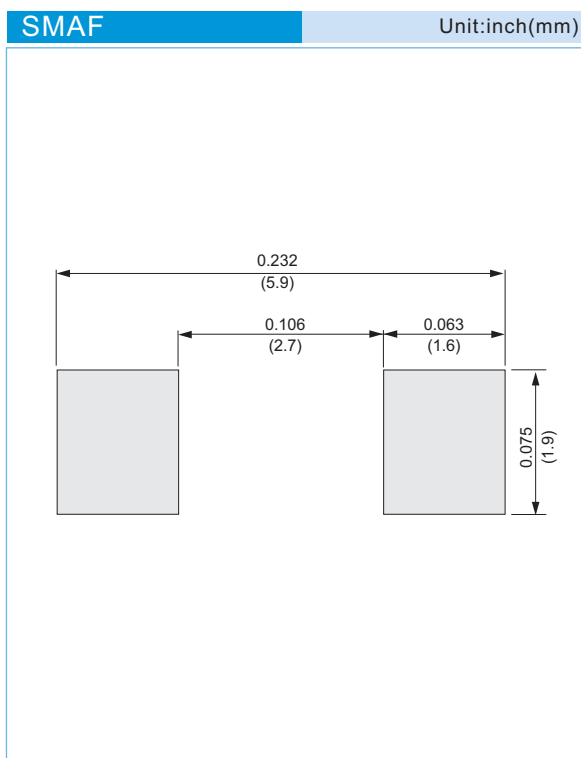


Fig.8 Typical Forward Characteristics



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MOUNTING PAD LAYOUT



ORDER INFORMATION

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

LEGAL STATEMENT

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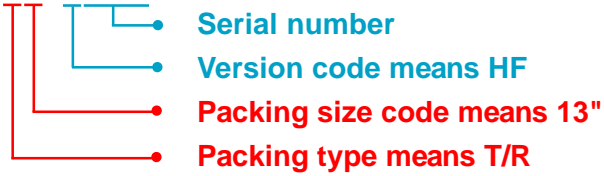


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For example :

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
T/B	A	N/A	0	HF	0	serial number
T/R	R	7"	1	RoHS	1	serial number
B/P	B	13"	2			
T/P	T	26mm	X			
TRR	S	52mm	Y			
TRL	L	PBCU	U			
FORMING	F	PBCD	D			

Part No_packing code_Version

MS18F_R1_00001

MS18F_R2_00001