



# SS12F SERIES

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 20-60 Volts **CURRENT** 1 Amperes

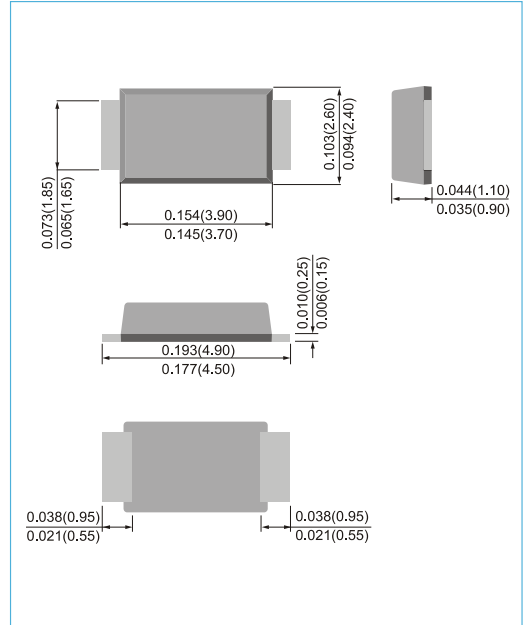
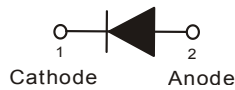
**SMAF** Unit : inch(mm)

### FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Low power loss, high efficiency
- Metal to silicon rectifier. majority carrier conduction
- High surge capacity
- High current capacity , low  $V_F$
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- 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 molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Approx. Weight:0.0011 ounces, 0.0328 grams



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

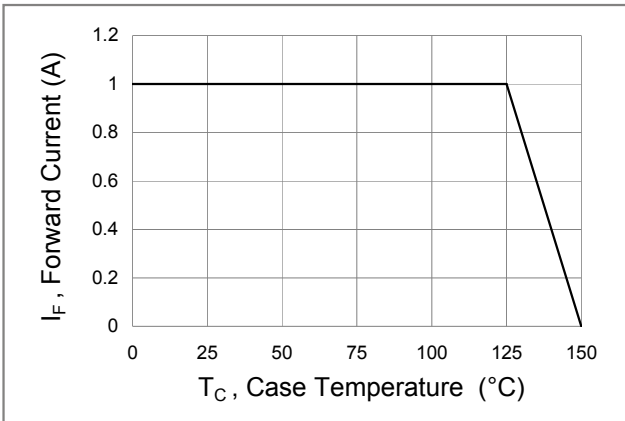
PARAMETER	SYMBOL	SS12F	SS13F	SS14F	SS15F	SS16F	UNITS
Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	V
RMS Voltage	$V_{RMS}$	14	21	28	35	42	V
DC Blocking Voltage	$V_R$	20	30	40	50	60	V
Average Forward Current	$I_{F(AV)}$	1					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	30					A
Forward Voltage at 1.0A	$V_F$	0.5		0.7		V	
DC Reverse Current at Rated DC Blocking Voltage $T_J=25^{\circ}\text{C}$	$I_R$	0.2		0.1		mA	
Typical Junction capacitance $V_R=4V, f=1\text{MHz}$	$C_J$	45					pF
Typical Thermal Resistance ,Junction to Lead (Note 1) Junction to Ambient (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	18 150					$^{\circ}\text{C} / \text{W}$
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, with 48cm<sup>2</sup> copper pad area  
2. Mounted on an FR4 PCB, single-sided copper, mini pad.

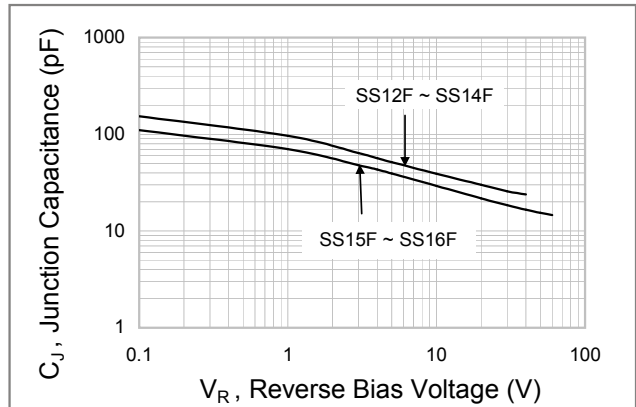


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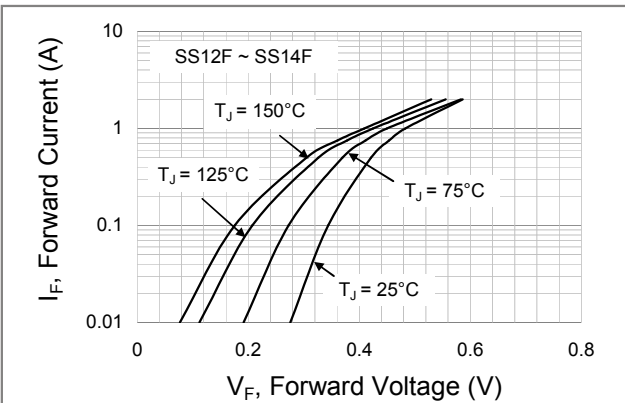
## RATING AND CHARACTERISTIC CURVES



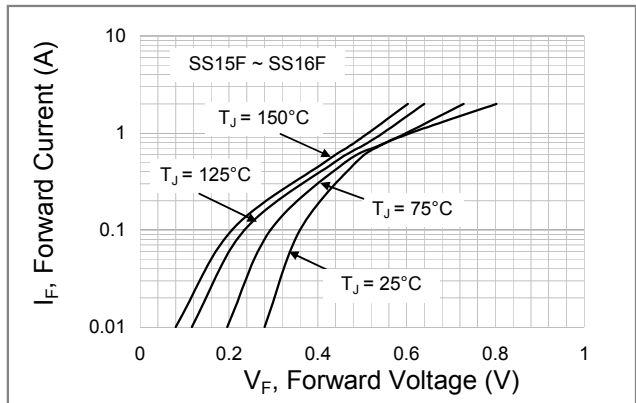
**Fig.1 Forward Current Derating Curve**



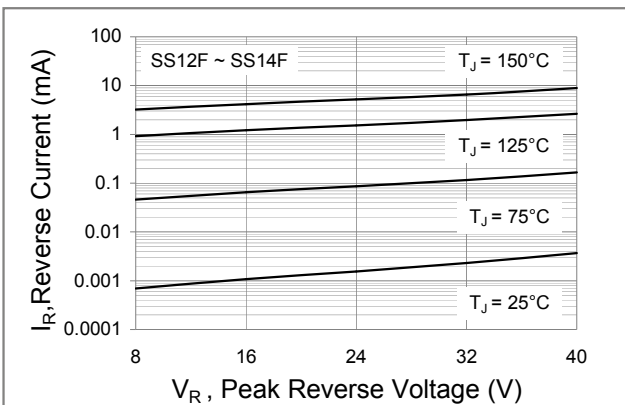
**Fig.2 Typical Junction Capacitance**



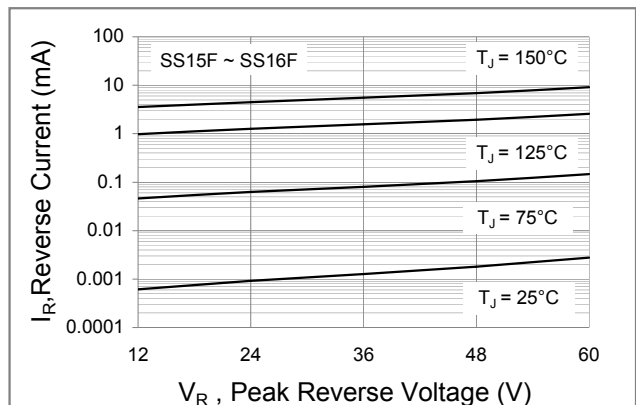
**Fig.3 Typical Forward Characteristics**



**Fig.4 Typical Forward Characteristics**



**Fig.5 Typical Reverse Characteristics**

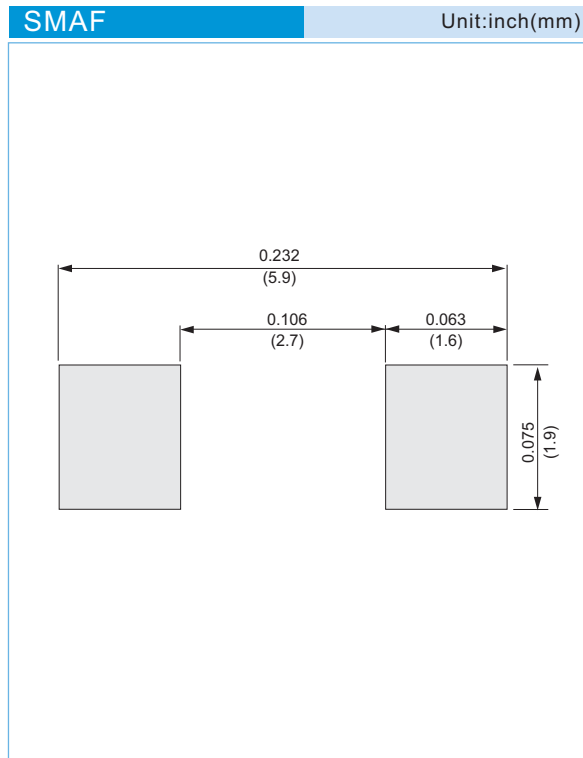


**Fig.6 Typical Reverse Characteristics**



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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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