



SS12F SERIES

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE 20-60 Volt **CURRENT** 1 Ampere

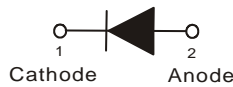
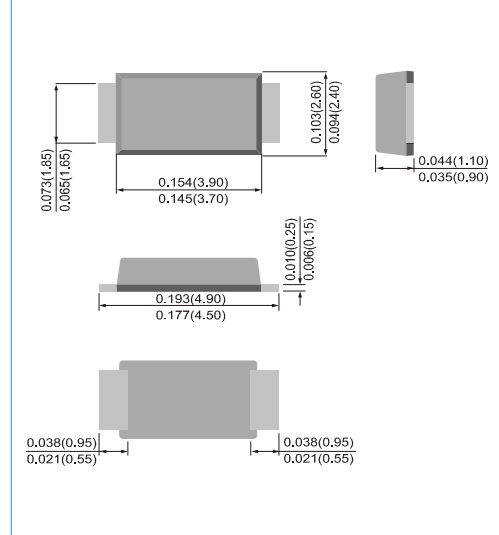
SMAF Unit : inch(mm)

FEATURES

- For surface mounted applications in order to optimize board space
- Ultra Thin Profile Package for Space Constrained Utilization
- Package suitable for Automated Handling
- Low power loss, high efficiency
- High surge capacity
- High current capacity , low V_F
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Lead free in compliance with EU RoHS 2011/65/EU directive.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: Plastic molded
- 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	I_{FSM}	30					A
Forward Voltage at 1A	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	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=100^{\circ}\text{C}$	I_R	5					mA
Typical Junction capacitance $V_R=4\text{V}, f=1\text{MHz}$	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 a FR4 PCB, single-sided copper, with 48cm² copper pad area
2. Mounted on a FR4 PCB, single-sided copper, mini pad.



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RATING AND CHARACTERISTIC CURVES

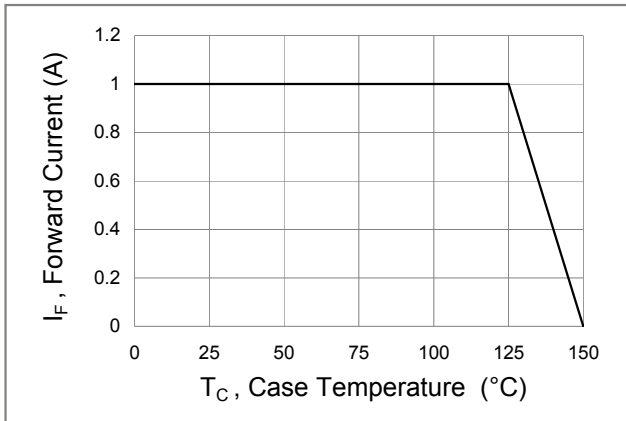


Fig.1 Forward Current Derating Curve

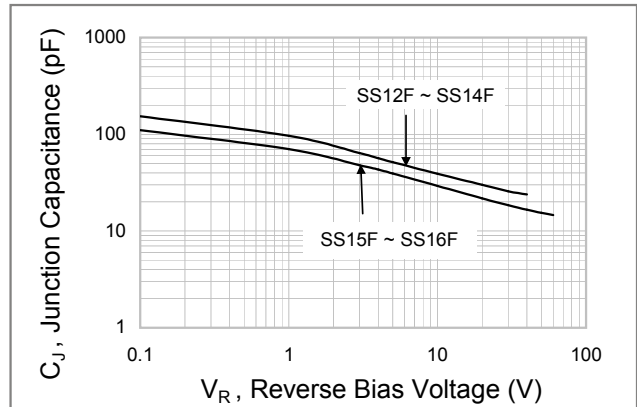


Fig.2 Typical Junction Capacitance

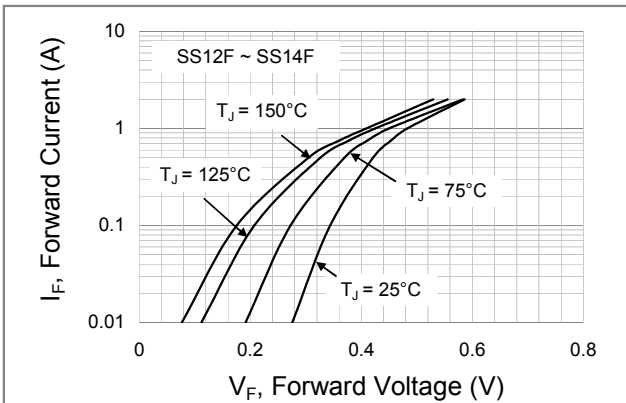


Fig.3 Typical Forward Characteristics

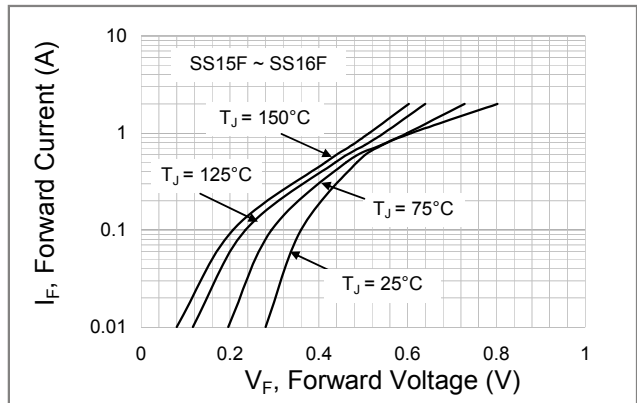


Fig.4 Typical Forward Characteristics

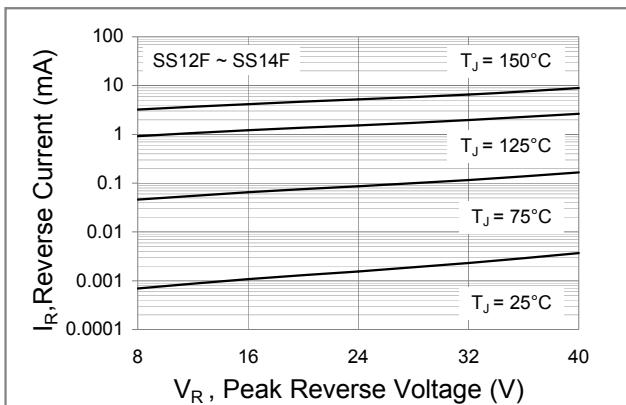


Fig.5 Typical Reverse Characteristics

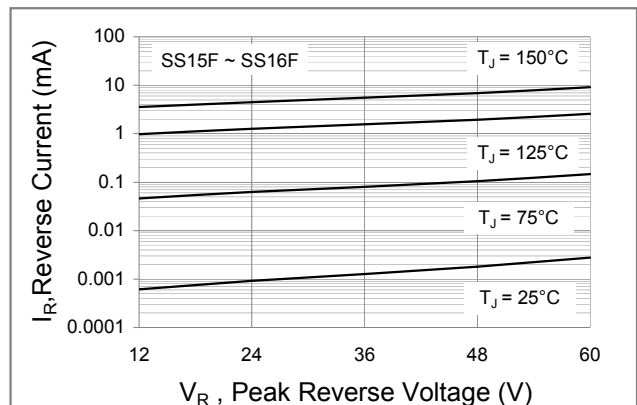
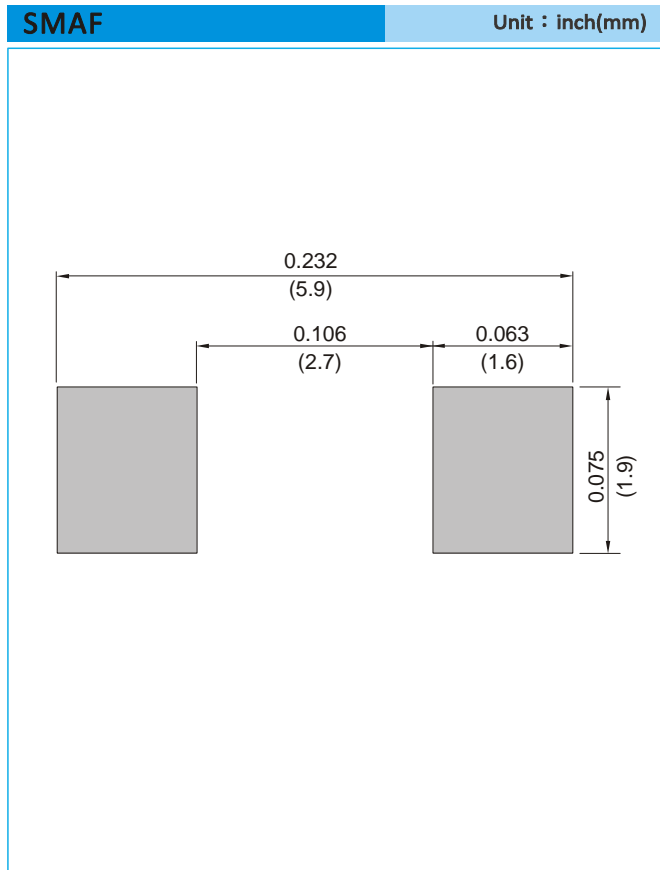


Fig.6 Typical Reverse Characteristics



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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



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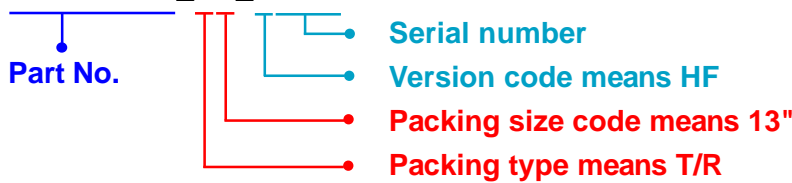
Part No_packing code_Version

SS12F_R1_00001

SS12F_R2_00001

For example :

RB500V-40_R2_00001



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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