

Features

$I_{F(AV)}$ 1A

V_{RRM} 20V-200V

High surge current capability

Polarity: Color band denotes cathode

Applications

Rectifier

SMAF



Marking : SS1X

X : 2 To 20

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SS1								
				2F	3F	4F	5F	6F	8F	10F	15F	20F
Repetitive Peak Reverse Voltage	V _{RRM}	V		20	30	40	50	60	80	100	150	200
Maximum RMS Voltage	V _{RMS}	V		14	21	28	35	42	56	70	105	140
Average Forward Current	I _{F(AV)}	A	60Hz Half-sine wave , Resistance load	1.0								
Surge(Non-repetitive)Forward Current	I _{FSM}	A	60Hz Half-sine wave , 1 cycle, Ta=25℃	30								
Junction Temperature	T _J	℃		-55~+125			-55~+150					
Storage Temperature	T _{STG}	℃		-55 ~ +150								

Electrical Characteristics ($T = 25^{\circ}C$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		SS1								
					2F	3F	4F	5F	6F	8F	10F	15F	20F
Peak Forward Voltage	V _F	V	I _F =1.0A		0.55			0.70		0.85		0.95	
Peak Reverse Current	I _{RRM1}	mA	V _{RM} =V _{RRM}	Ta=25°C	0.5				0.1				
	Ta=100°C			10				5.0					
Thermal Resistance(Typical)	R _{θJ-A}	°C/ W	Between junction and ambient		81								
	R _{θJ-L}		Between junction and terminal		9.5								
Juction Capacitance (Typical)	Cj	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C		40			30		26		20	

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on FR4 PCB double sided copper mini pad

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

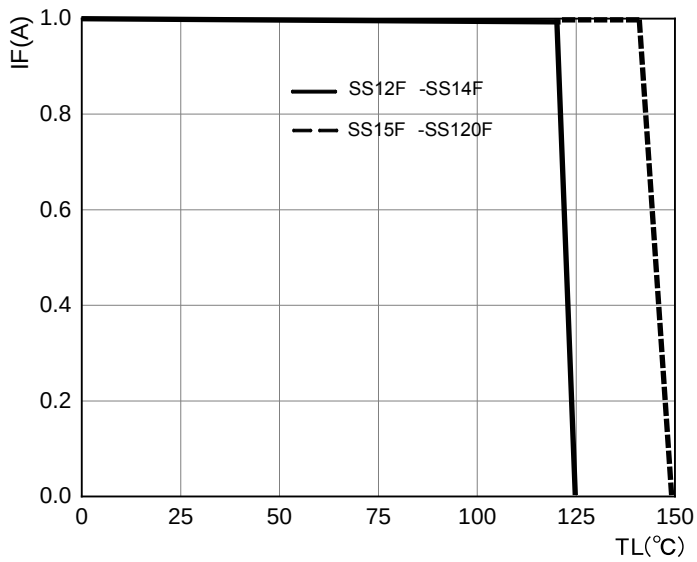
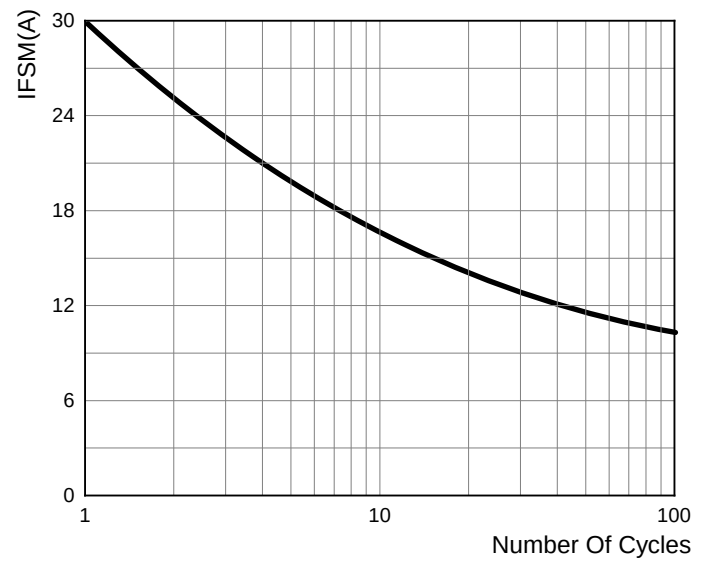
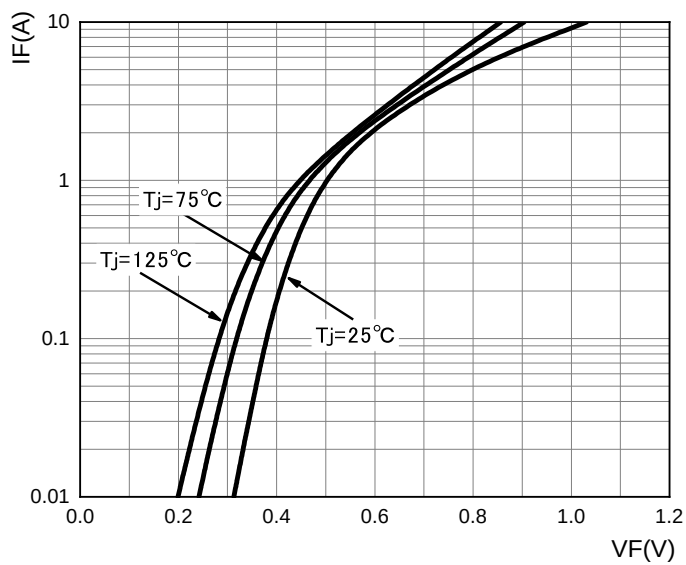


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



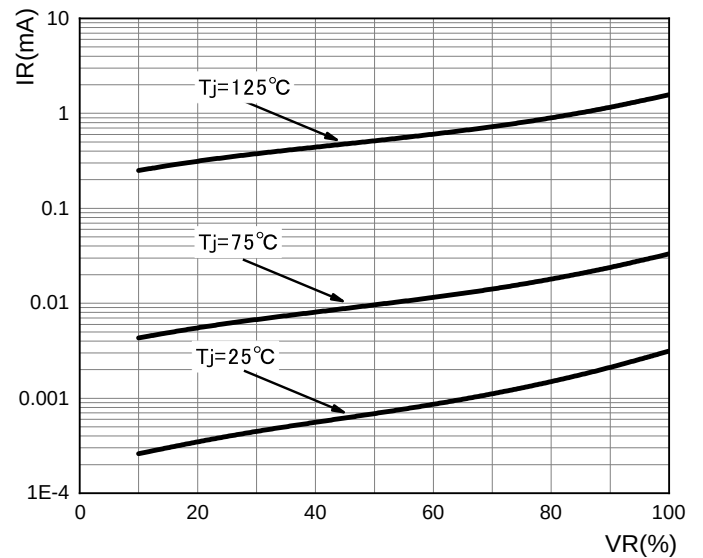
SS12F-SS14F

FIG.3: TYPICAL FORWARD CHARACTERISTICS



SS12F-SS14F

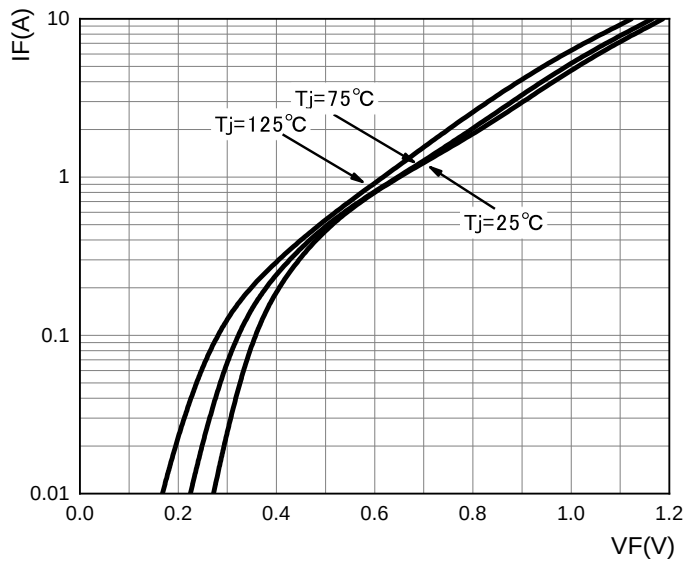
FIG.4: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

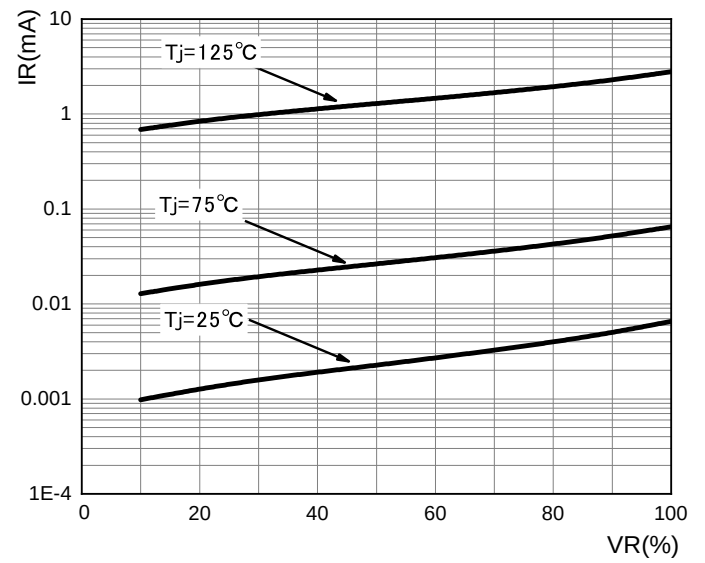
SS15F-SS16F

FIG.5: TYPICAL FORWARD CHARACTERISTICS



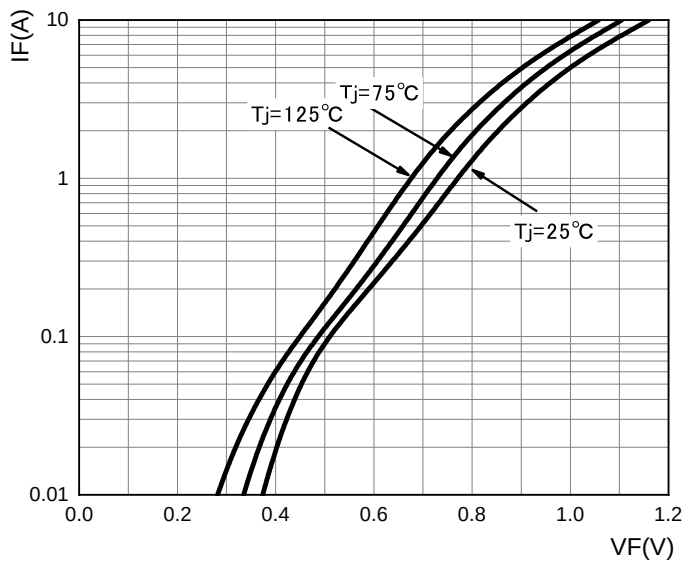
SS15F-SS16F

FIG.6: TYPICAL REVERSE CHARACTERISTICS



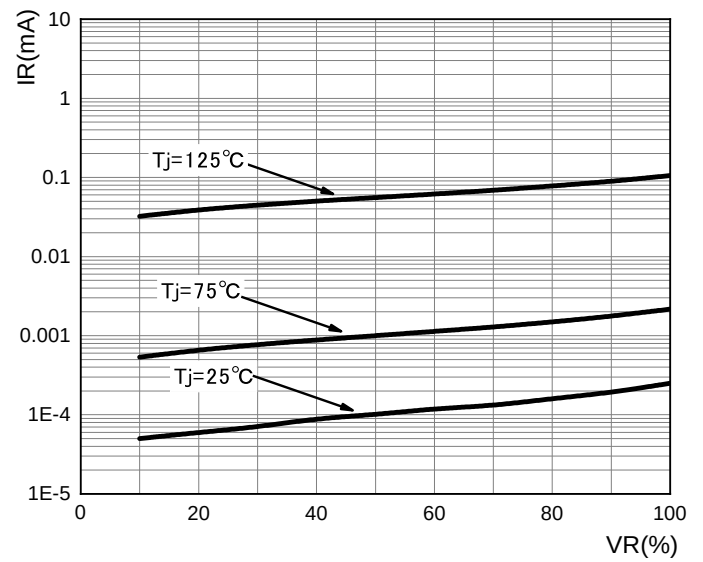
SS18F-SS110F

FIG.7: TYPICAL FORWARD CHARACTERISTICS



SS18F-SS110F

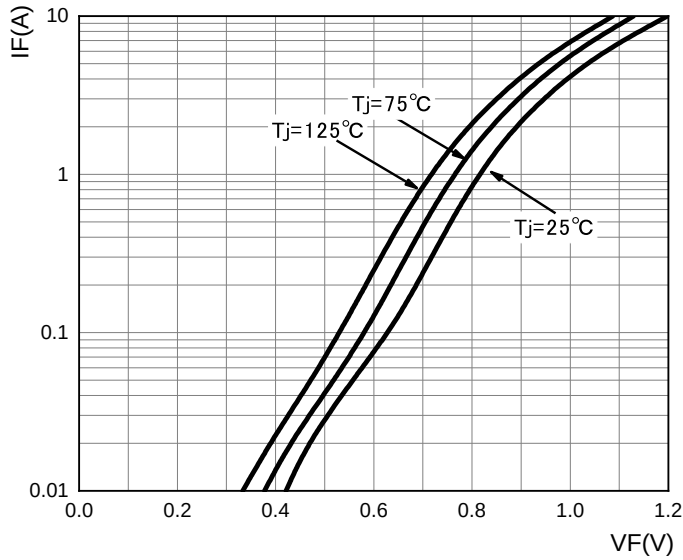
FIG.8: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

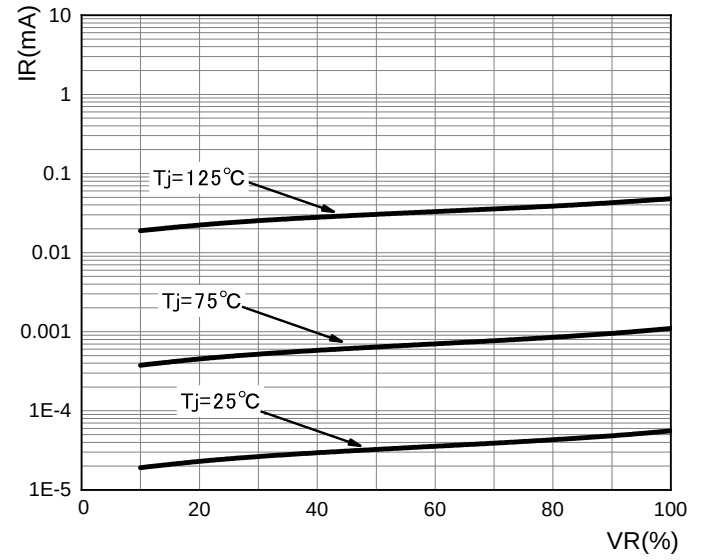
SS115F

FIG.9: TYPICAL FORWARD CHARACTERISTICS



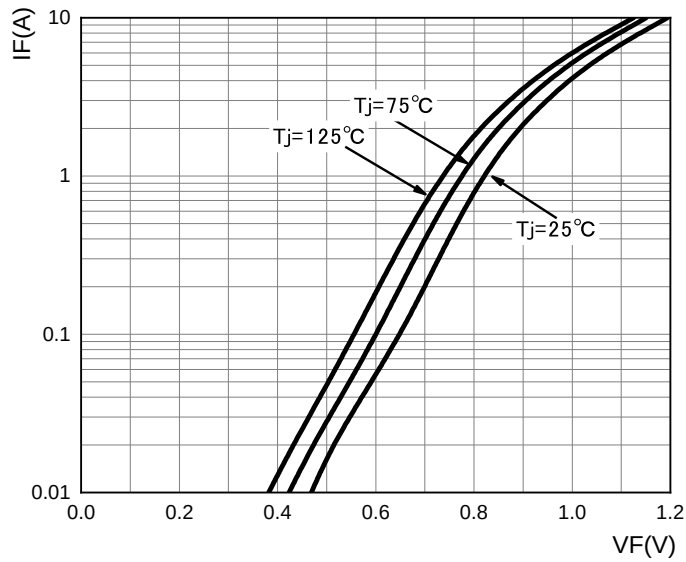
SS115F

FIG.10: TYPICAL REVERSE CHARACTERISTICS



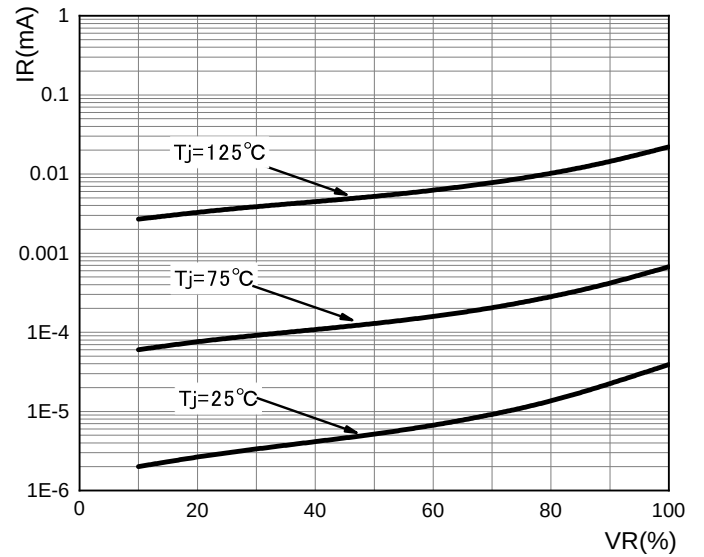
SS120F

FIG.11: TYPICAL FORWARD CHARACTERISTICS

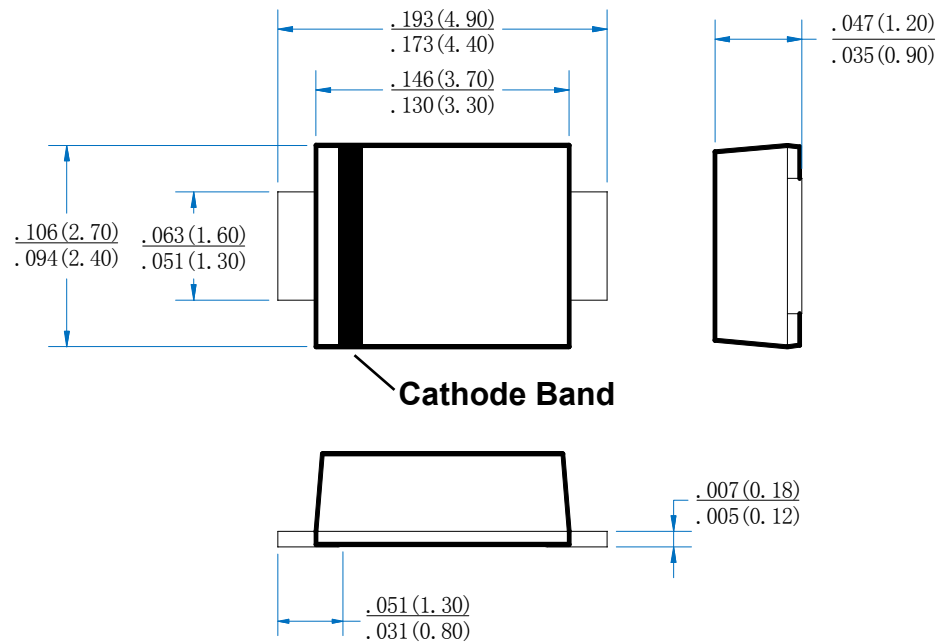


SS120F

FIG.12: TYPICAL REVERSE CHARACTERISTICS

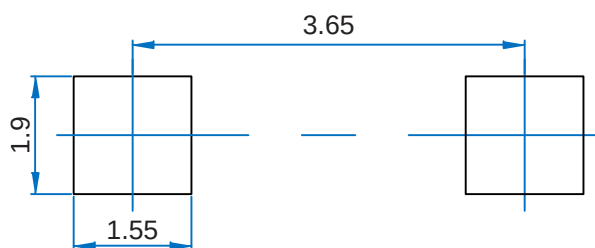


SMAF Package outline Dimensions



Dimensions in inches and (millimeters)

SMAF Suggested pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.