

Features

$I_{F(AV)}$ 5A

V_{RRM} 20V-200V

High surge current capability

Polarity: Color band denotes cathode

SMAF



Marking:SS5X

X : 2 To 20

Applications

Rectifier

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SS5								
				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	5.0								
Surge(Non-repetitive)Forward Current	I _{FSM}	A	60Hz Half-sine wave , 1 cycle, Ta=25℃	150								
Junction Temperature	T _J	℃		-55 ~ +150								
Storage Temperature	T _{STG}	℃		-55 ~ +150								

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

Item	Symbol	Unit	Test Condition		SS5								
					2F	3F	4F	5F	6F	8F	10F	15F	20F
Peak Forward Voltage	V _F	V	I _F =5.0A		0.55			0.70		0.85		0.95	
Peak Reverse Current	I _{RRM1}	mA	V _{RM} =V _{RRM}	T _a =25℃	0.5				0.1				
	T _a =100℃			10				5.0					
Thermal Resistance(Typical)	R _{θJ-A}	℃/W	Between junction and ambient		114								
	Between junction and terminal		12										
Juction Capacitance (Typical)	C _j	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C		260			220		130		100	80

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

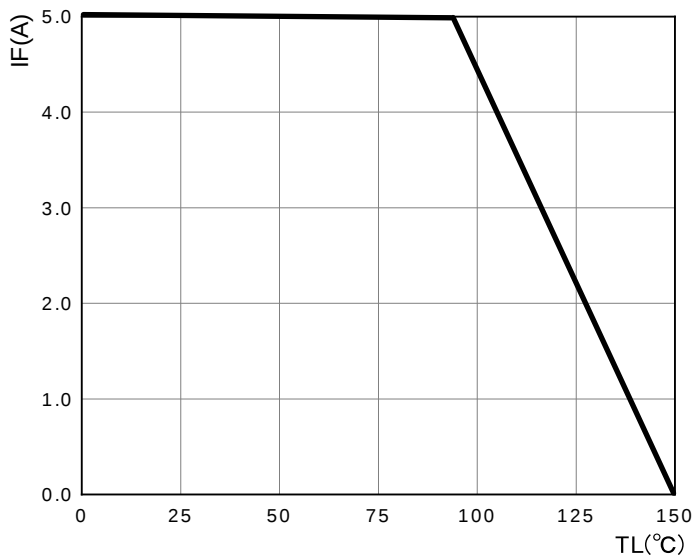
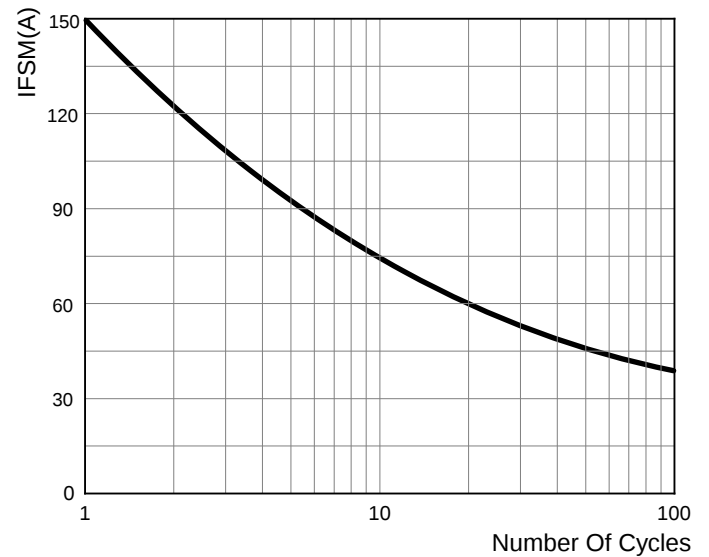
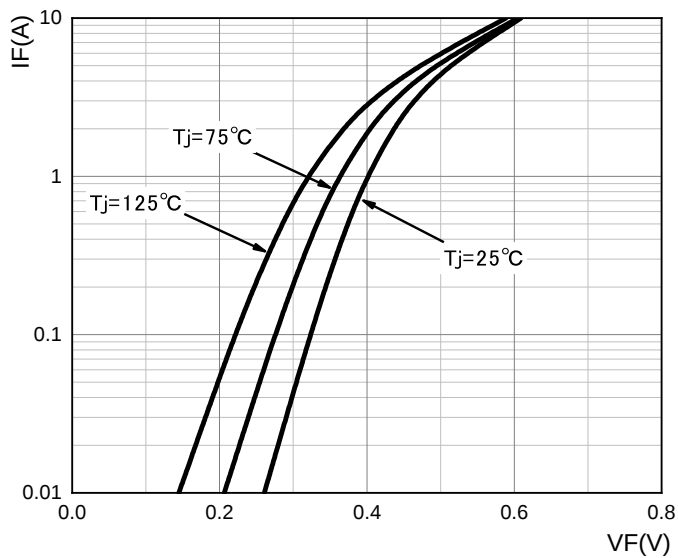


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



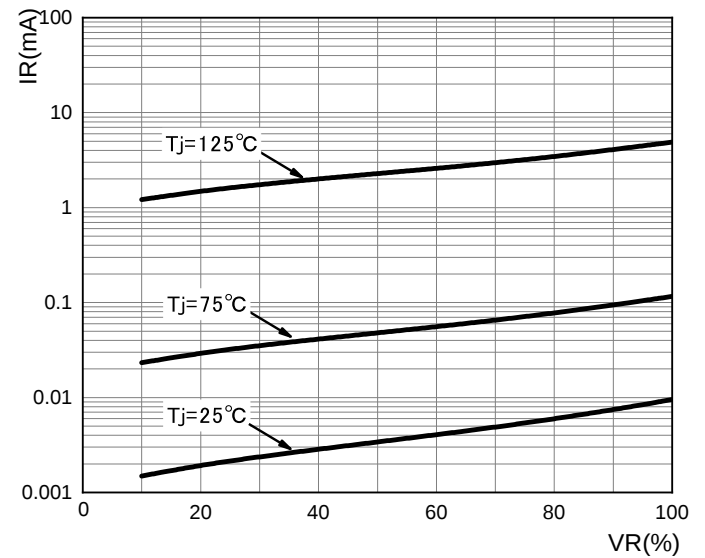
SS52F-SS54F

FIG.3: TYPICAL FORWARD CHARACTERISTICS



SS52F-SS54F

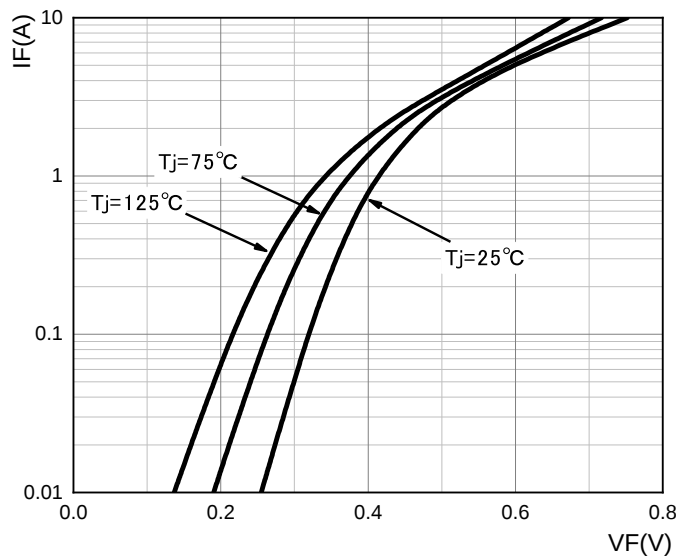
FIG.4: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

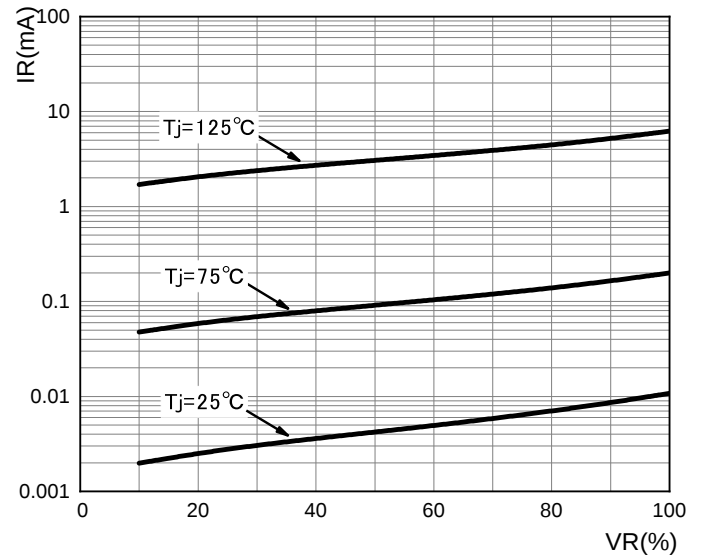
SS55F-SS56F

FIG.5: TYPICAL FORWARD CHARACTERISTICS



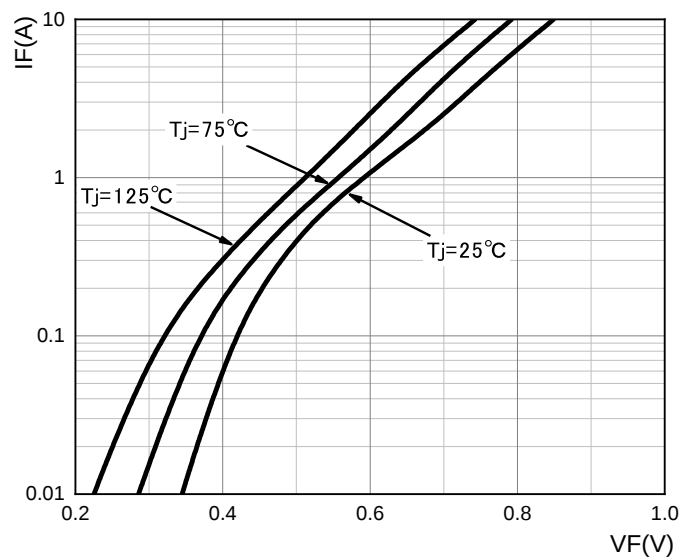
SS55F-SS56F

FIG.6: TYPICAL REVERSE CHARACTERISTICS



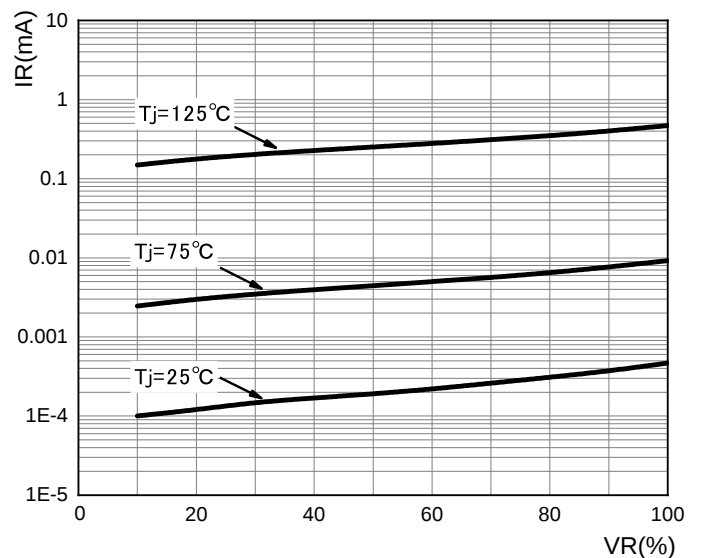
SS58F-SS510F

FIG.7: TYPICAL FORWARD CHARACTERISTICS



SS58F-SS510F

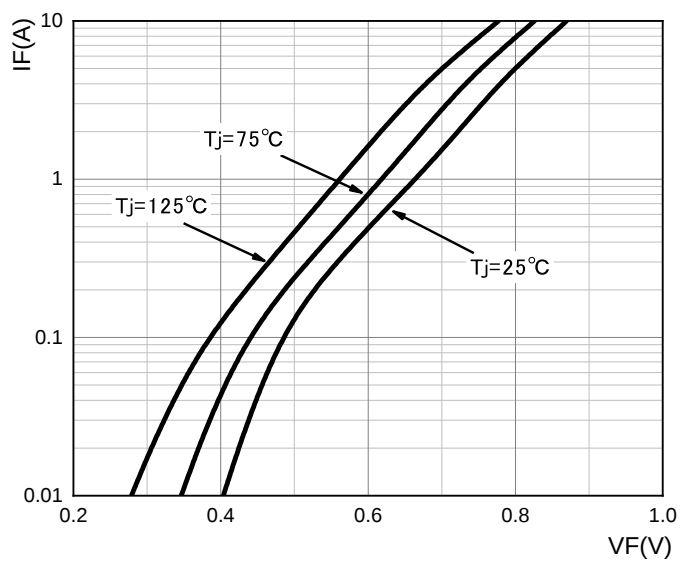
FIG.8: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

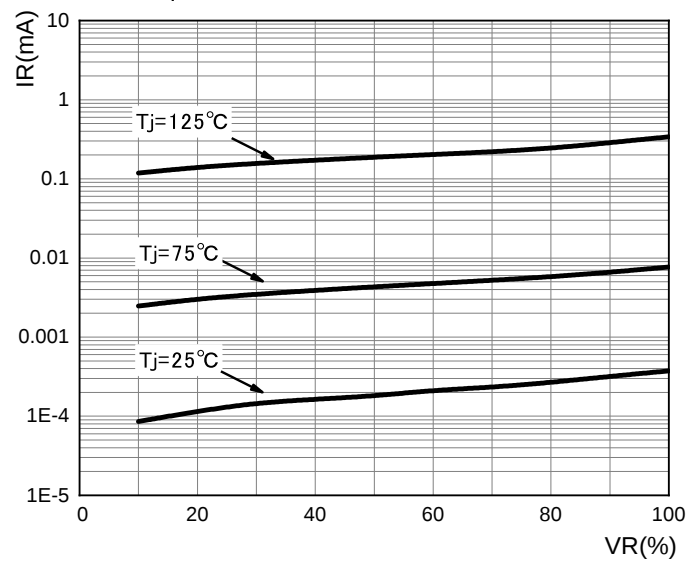
SS515F

FIG.9: TYPICAL FORWARD CHARACTERISTICS



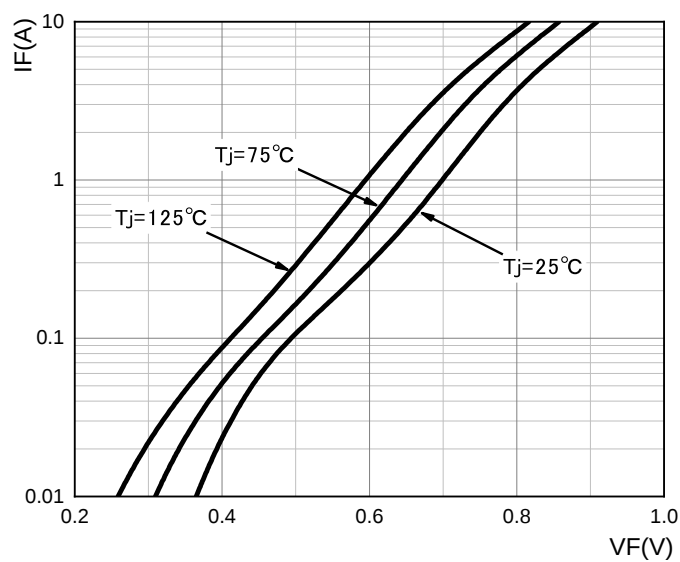
SS515F

FIG.10: TYPICAL REVERSE CHARACTERISTICS



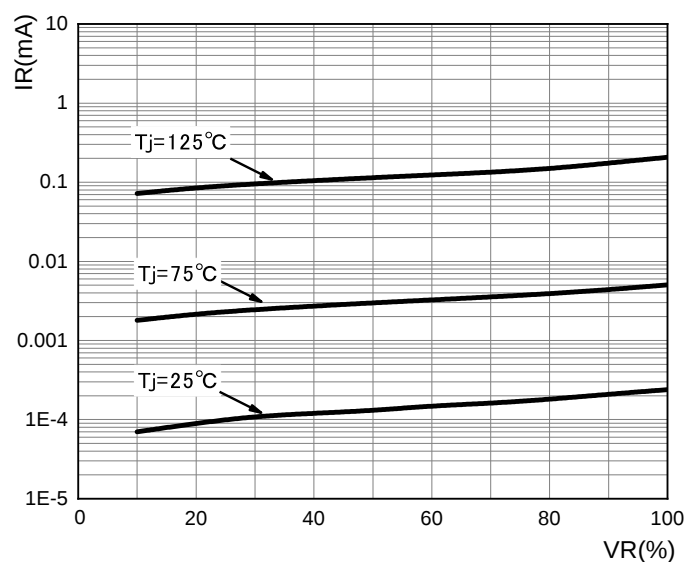
SS520F

FIG.11: TYPICAL FORWARD CHARACTERISTICS

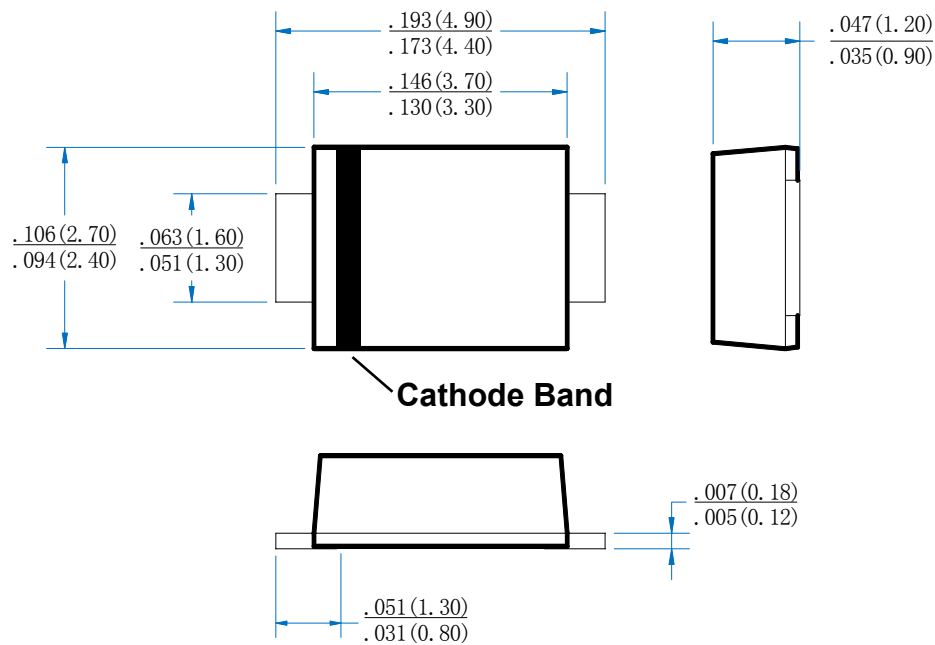


SS520F

FIG.12: TYPICAL REVERSE CHARACTERISTICS

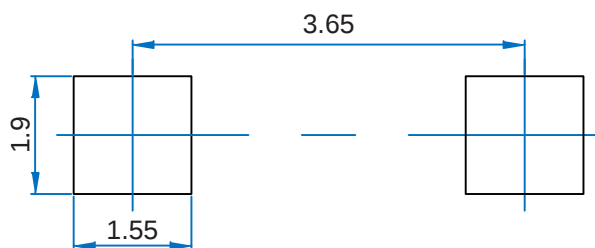


SMAF Package outline Dimensions



Dimensions in inches and (millimeters)

SMAF Suggested pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.