

Features

- $I_{F(AV)}$ 5A
- V_{RRM} 20V-200V
- High surge current capability
- Polarity: Color band denotes cathode



SMAF top view



Schematic diagram

Applications

- Rectifier

Marking

- SS5X

X:From 2 To 20



Pb-Free



RoHS



Halogen-Free

Limiting Values (Absolute Maximum Rating)

Symbol	Item	Conditions	SS5										Unit
			2F	3F	4F	5F	6F	8F	10F	15F	20F		
V _{RRM}	Repetitive Peak Reverse Voltage		20	30	40	50	60	80	100	150	200	V	
V _{RMS}	Maximum RMS Voltage		14	21	28	25	42	56	70	105	140	V	
I _{F(AV)}	Average Rectified Output Current	60Hz Half-sine wave, Resistance load	5.0										A
I _{FSM}	Surge(Non-repetitive)Forward Current	60Hz Half-sine wave, 1 cycle, T _a =25℃	150										A
T _J	Junction Temperature		-55~+150										℃
T _{STG}	Operating and Storage Temperature Range		-55~+150										℃

Electrical Characteristics (T=25°C Unless otherwise specified)

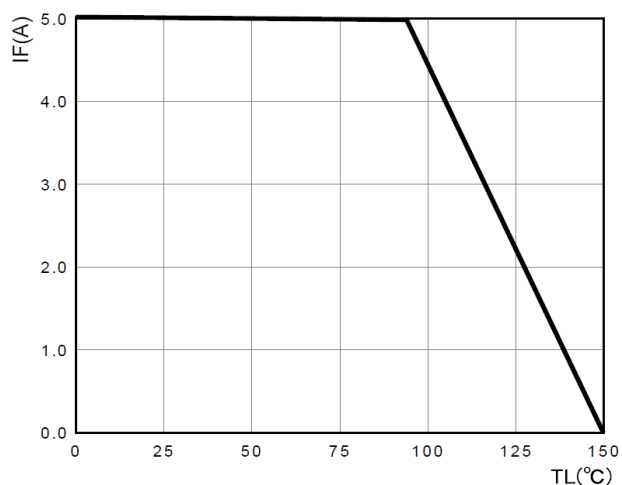
Symbol	Item	Conditions	SS5								Unit
			2F	3F	4F	5F	6F	8F	10F	15F	
V _F	Peak Forward Voltage	I _F =5.0A	0.55		0.70		0.85		0.95		V
I _{RRM1}	Peak Reverse Current	V _{RM} =V _{RRM} T _a =25℃	0.5				0.1				mA
I _{RRM2}		V _{RM} =V _{RRM} T _a =125℃	10.0				5.0				
R _{θJA}	Thermal Resistance(Typical)	Between junction and ambient	114								℃/W
R _{θJL}		Between junction and terminal	12								
C _j	Juction Capacitance (Typical)	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C	260		220		130		100	80	pF

Notes:

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

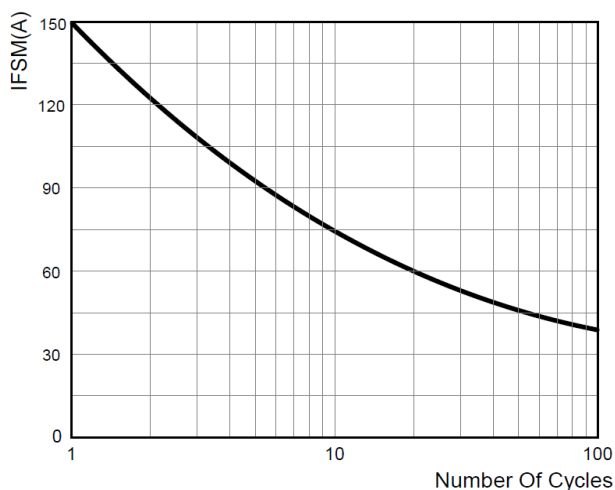
Typical Operating Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE



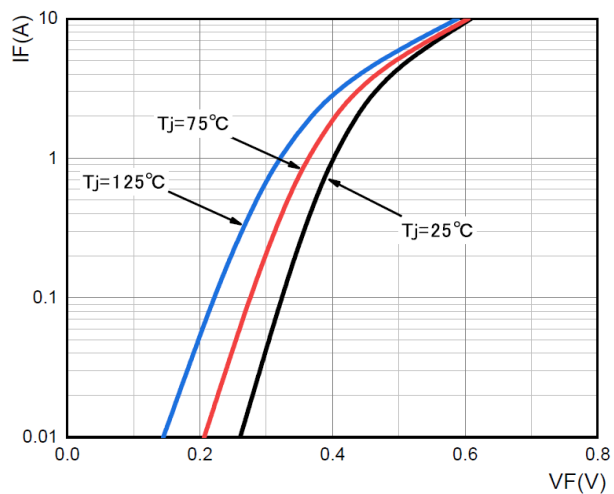
SS52F-SS54F

FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



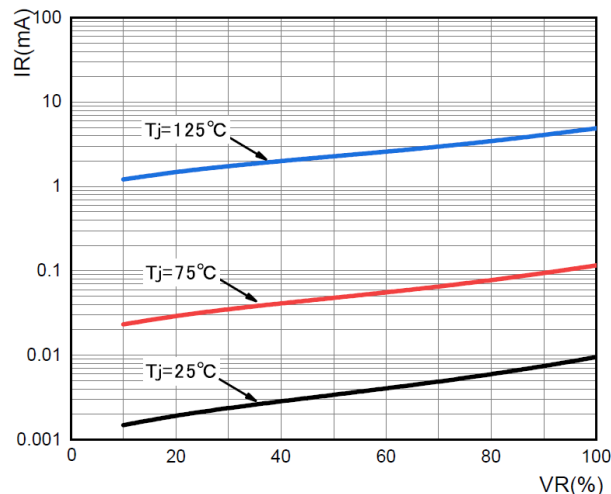
SS52F-SS54F

FIG.3: TYPICAL FORWARD CHARACTERISTICS



SS55F-SS56F

FIG.4: TYPICAL REVERSE CHARACTERISTICS



SS55F-SS56F

FIG.5: TYPICAL FORWARD CHARACTERISTICS

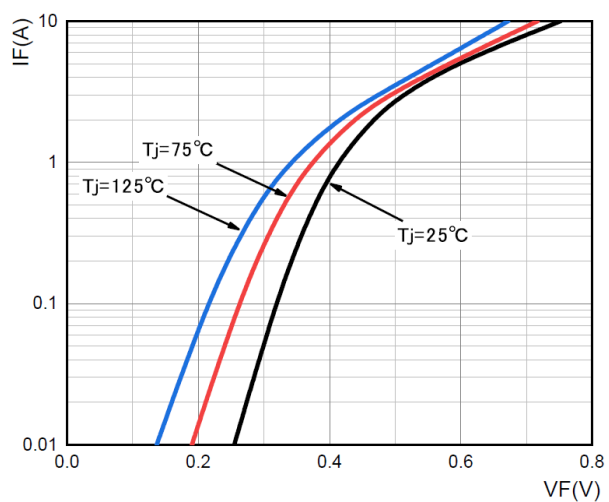
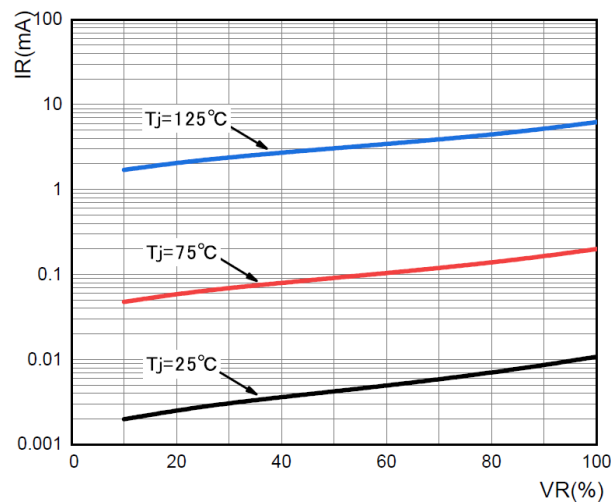
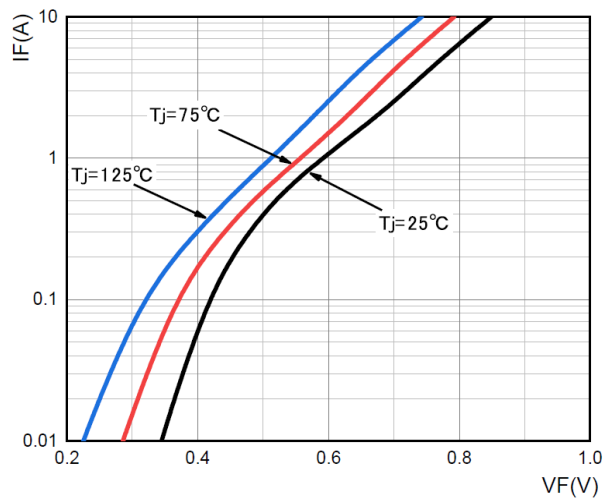


FIG.6: TYPICAL REVERSE CHARACTERISTICS



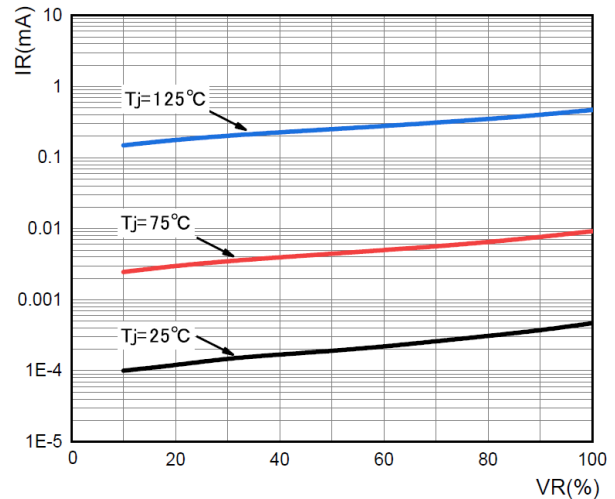
SS58F-SS510F

FIG.7: TYPICAL FORWARD CHARACTERISTICS



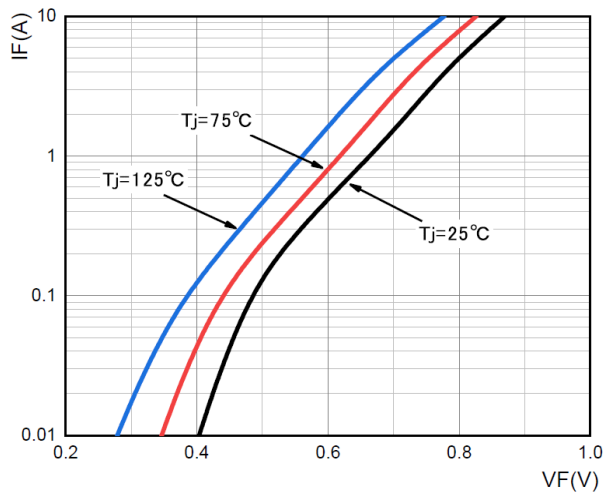
SS58F-SS510F

FIG.8: TYPICAL REVERSE CHARACTERISTICS



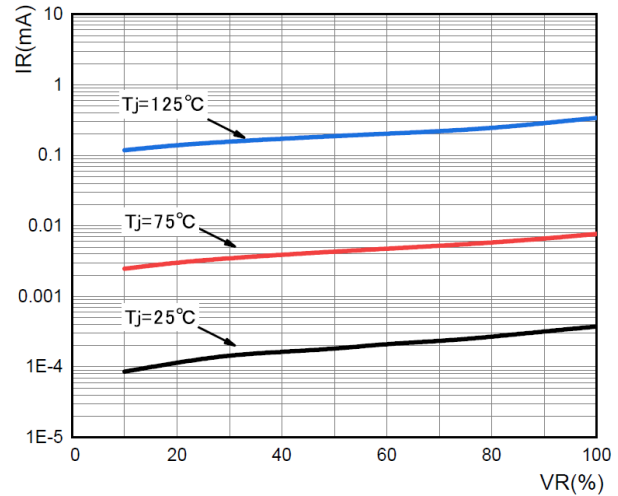
SS515F

FIG.9: TYPICAL FORWARD CHARACTERISTICS



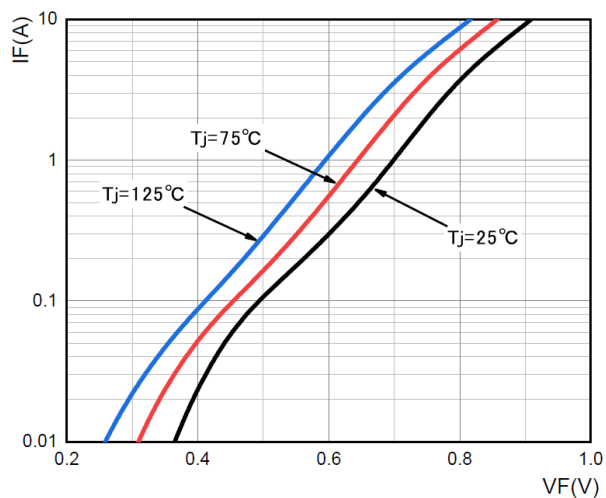
SS515F

FIG.10: TYPICAL REVERSE CHARACTERISTICS



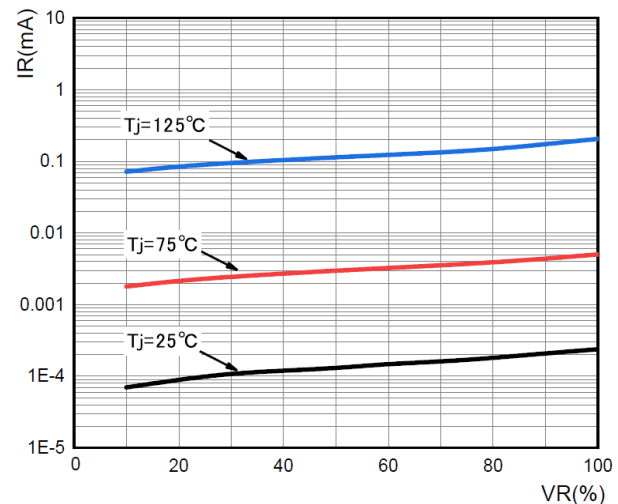
SS520F

FIG.11: TYPICAL FORWARD CHARACTERISTICS

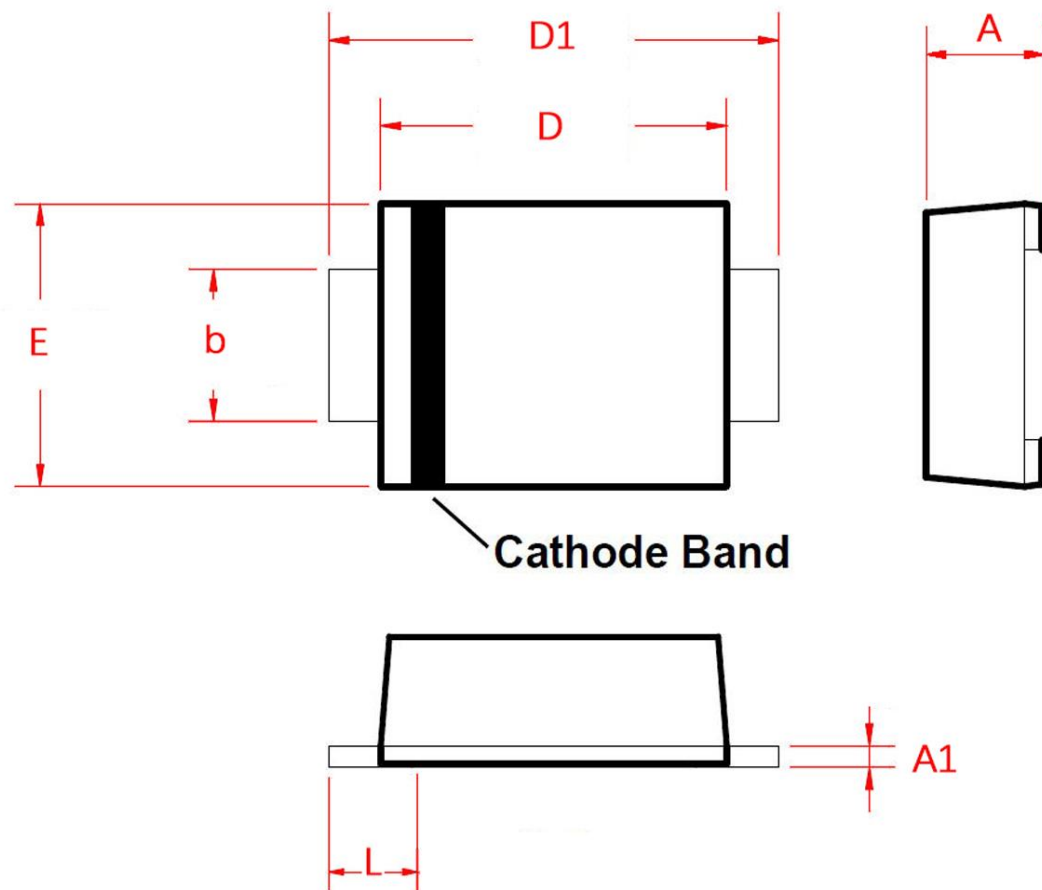


SS520F

FIG.12: TYPICAL REVERSE CHARACTERISTICS



SMAF Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.200	0.035	0.047
A1	0.120	0.180	0.005	0.007
b	1.300	1.600	0.051	0.063
D	3.300	3.700	0.130	0.146
D1	4.400	4.900	0.173	0.193
E	2.400	2.700	0.094	0.106
L	0.800	1.300	0.031	0.051