

Features

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

Applications

Rectifier

SMC



Marking:SK5X

X : 2 To 20

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SK5								
				2	3	4	5	6	8	10	15	20
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	℃		-50~+150								
Storage Temperature	T _{STG}	℃		-50 ~ +150								

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

Item	Symbol	Unit	Test Condition		SK5							
					2	3	4	5	6	8	10	15
Peak Forward Voltage	V _F	V	I _F =5.0A		0.55		0.7		0.85		0.95	
Peak Reverse Current	I _{RRM1}	mA	V _{RM} =V _{RRM}	Ta=25℃	0.5			0.1				
	Ta=100℃			10			0.5					
Thermal Resistance(Typical)	R _{θJ-A}	℃/W	Between junction and ambient		96							
	R _{θJ-L}		Between junction and terminal		9							
Junction Capacitance (Typical)	Cj	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 1" x 1"(25.4mm x 25.4mm) FR4 PCB, double sided copper, with minimum pad layout

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

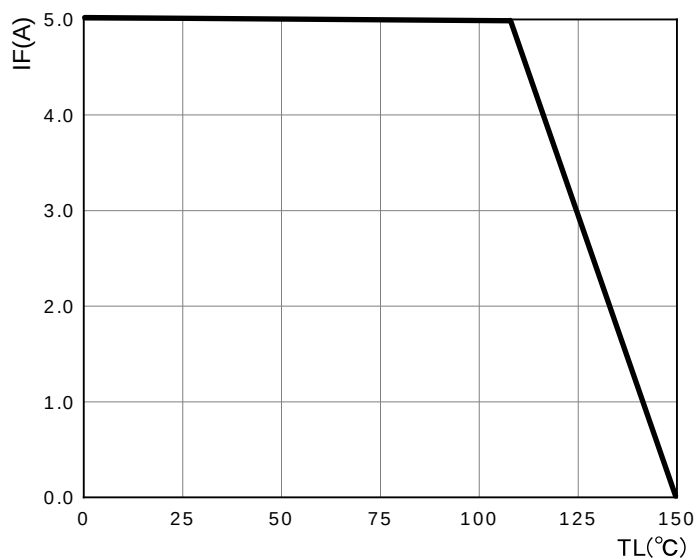
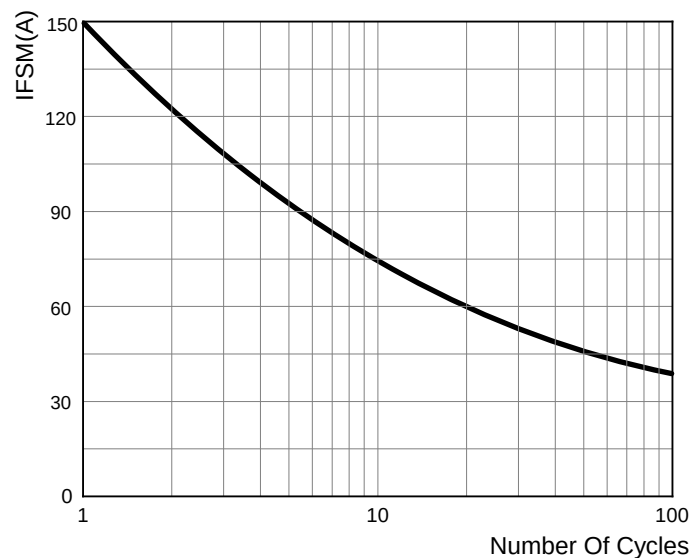
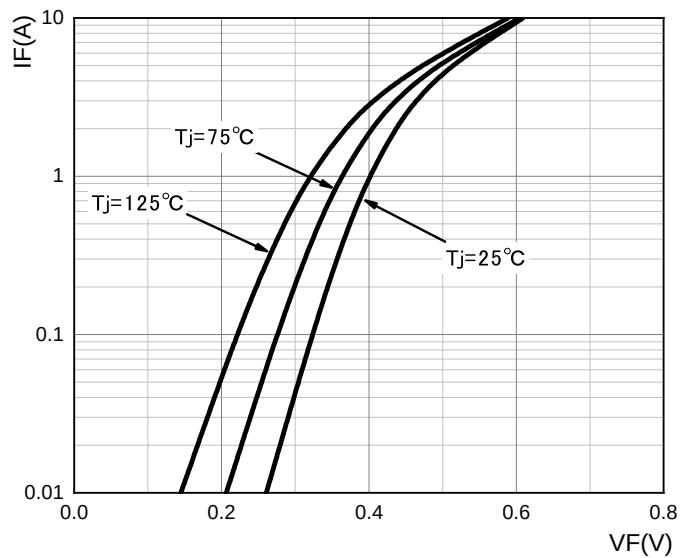


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



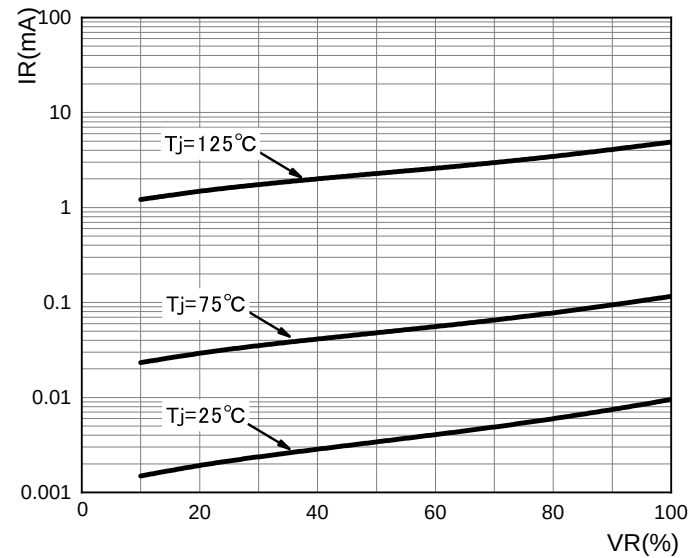
SK52-SK54

FIG.3: TYPICAL FORWARD CHARACTERISTICS



SK52-SK54

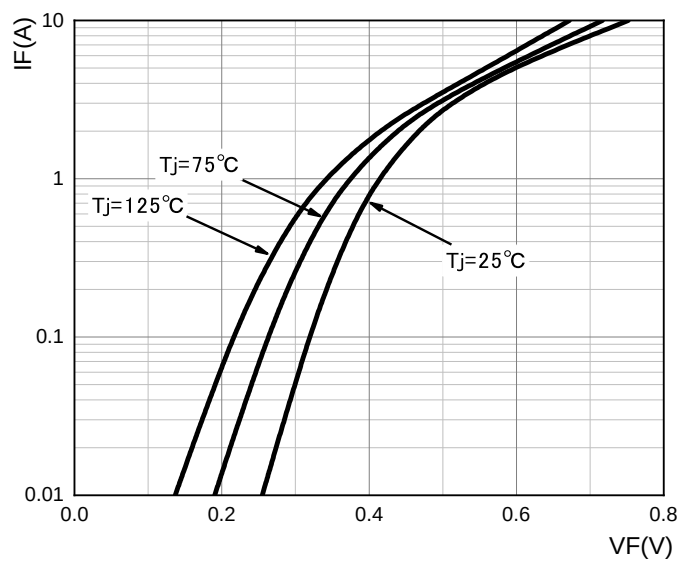
FIG.4: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

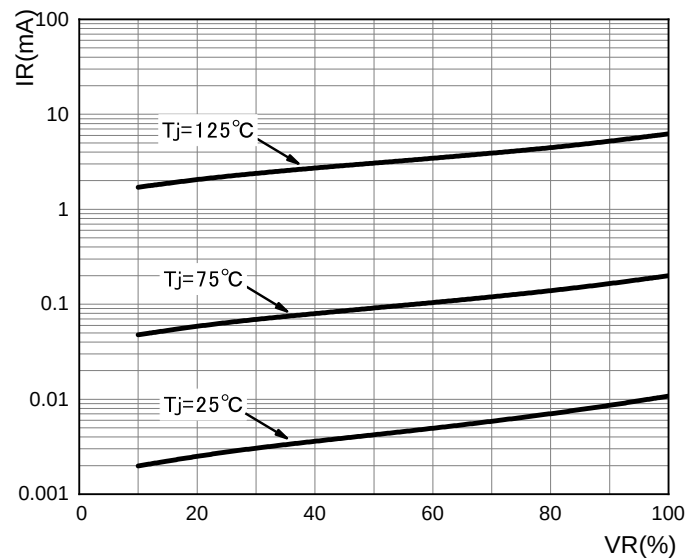
SK55-SK56

FIG.5: TYPICAL FORWARD CHARACTERISTICS



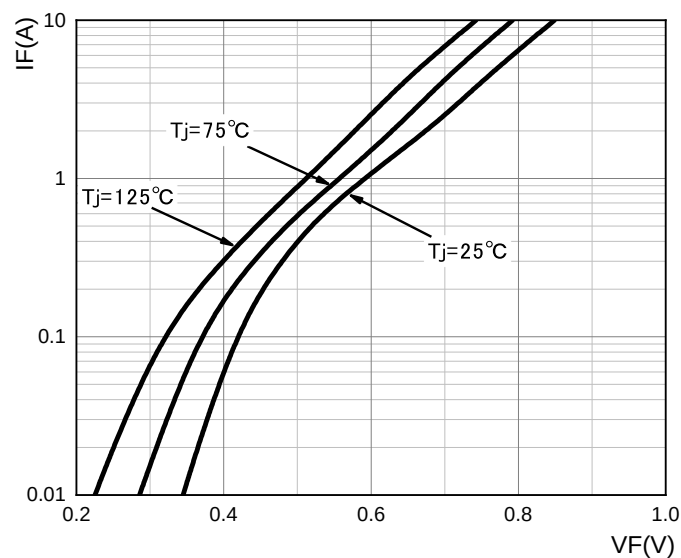
SK55-SK56

FIG.6: TYPICAL REVERSE CHARACTERISTICS



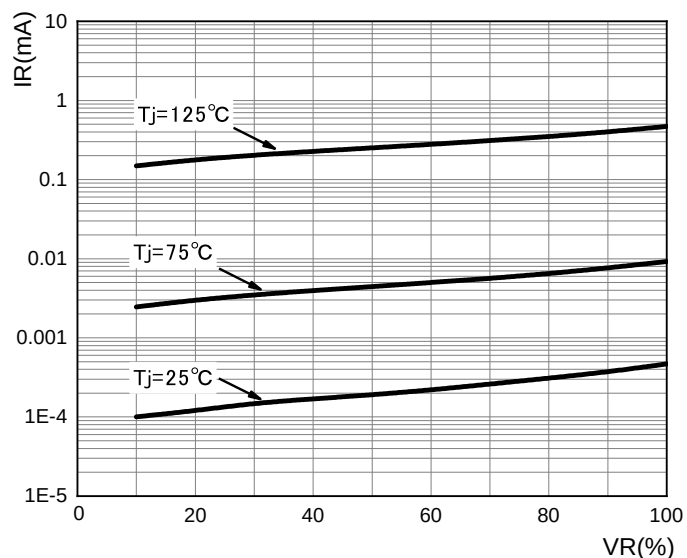
SK58-SK510

FIG.7: TYPICAL FORWARD CHARACTERISTICS



SK58-SK510

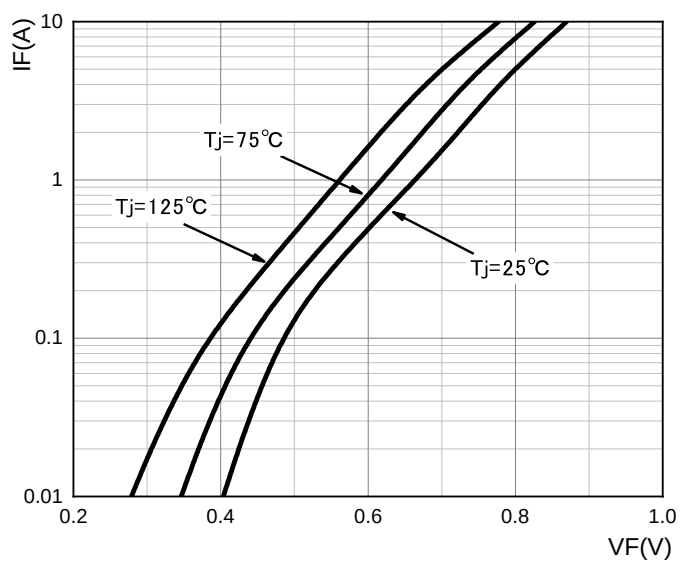
FIG.8: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

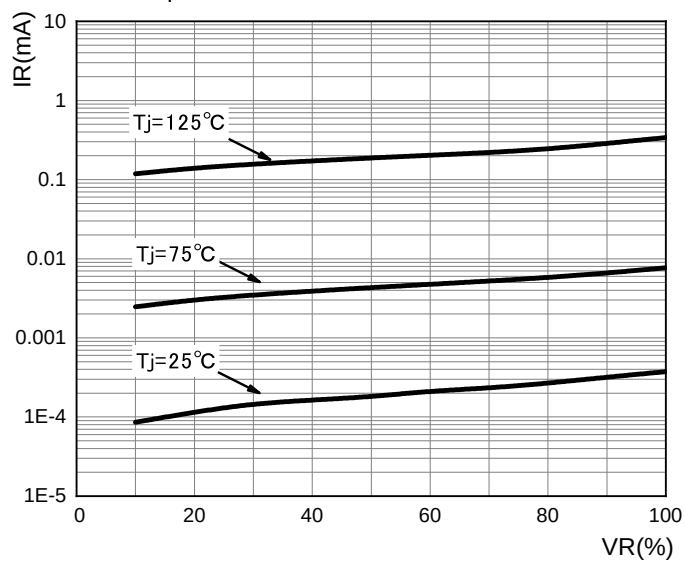
SK515

FIG.9: TYPICAL FORWARD CHARACTERISTICS



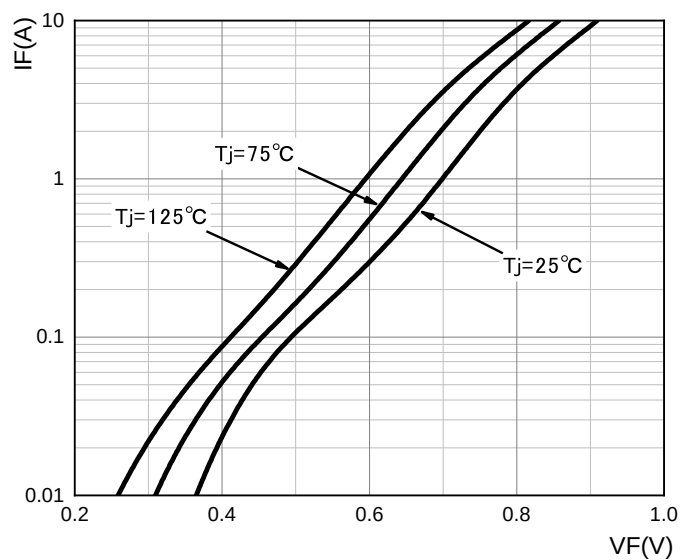
SK515

FIG.10: TYPICAL REVERSE CHARACTERISTICS



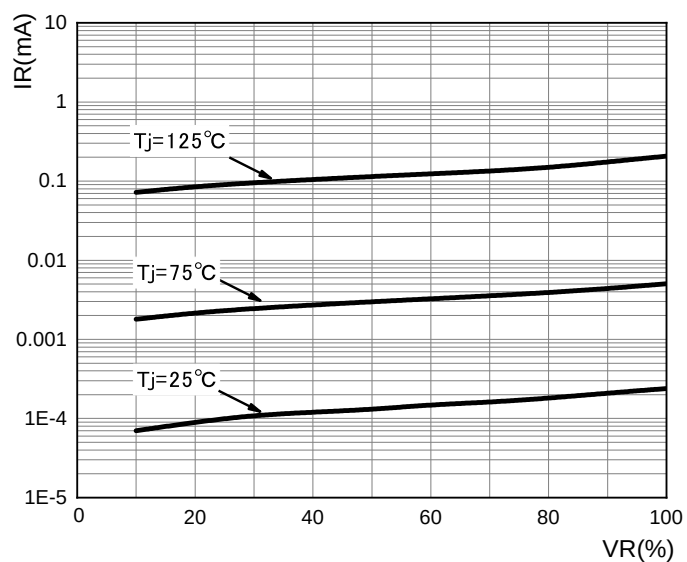
SK520

FIG.11: TYPICAL FORWARD CHARACTERISTICS

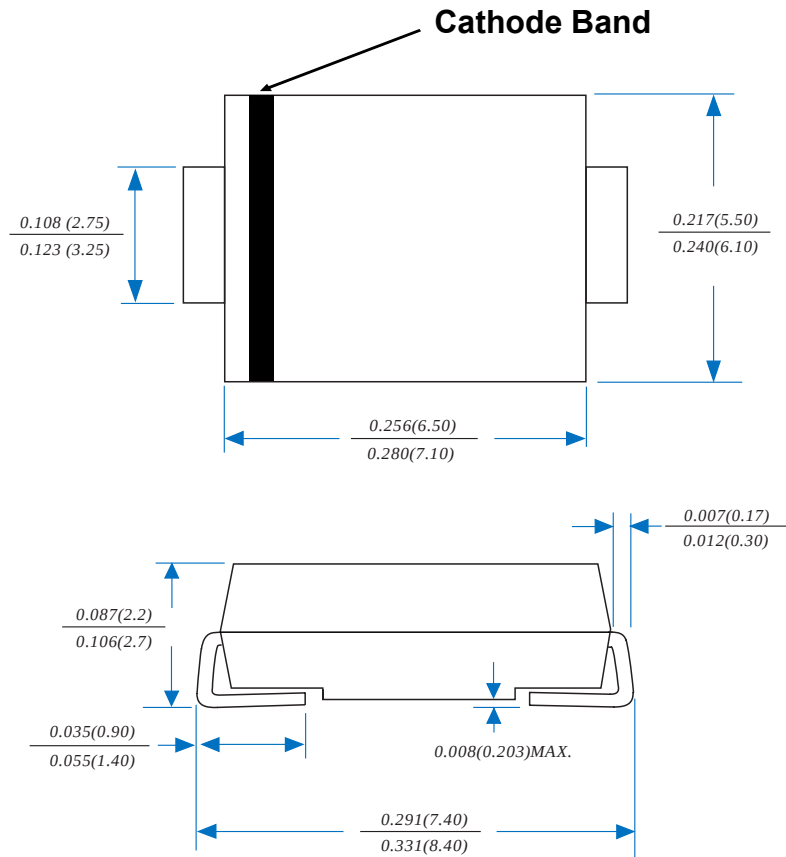


SK520

FIG.12: TYPICAL REVERSE CHARACTERISTICS

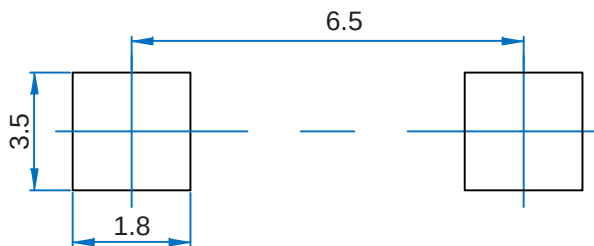


SMC Package Outline Dimensions



Dimensions in inches and (millimeters)

SMC 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.