Features

$I_{F(AV)}$ 8A

V_{RRM} 20V-200V

High surge current capability

Polarity: Color band denotes cathode

Applications

Rectifier

SMC

Marking:SK8X

X： 2 To 20

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SK8								
				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
Maximum DC Blocking Voltage	V_{DC}	V		20	30	40	50	60	80	100	150	200
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load	8.0								
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, Ta=25℃	200								
Junction Temperature	T_J	℃		-55 ~ +150								
Storage Temperature	T_{STG}	℃		-55 ~ +150								

Electrical Characteristics (T =25℃Unless otherwise specified)

Item	Symbol	Unit	Test Condition		SK8							
					2	3	4	5	6	8	10	15	20
Peak Forward Voltage	V_F	V	I_F=8.0A		0.55			0.7		0.85		0.95	
Peak Reverse Current	I_{RRM1}	mA	$V_{RM}=V_{RRM}$	Ta=25℃	0.5					0.1			
	I_{RRM2}			Ta=100℃	20					10			
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	Between junction and ambient		95								
	$R_{\theta J-L}$		Between junction and terminal		8								
Juction Capacitance (Typical)	Cj	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C		480			360		246		175	136

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

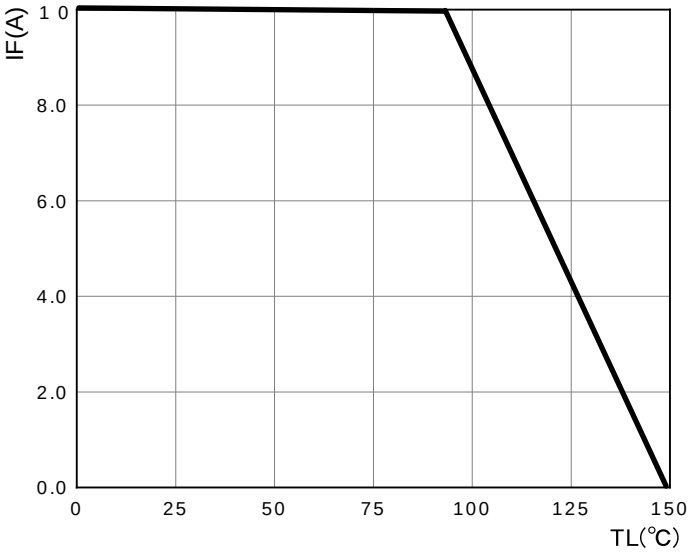
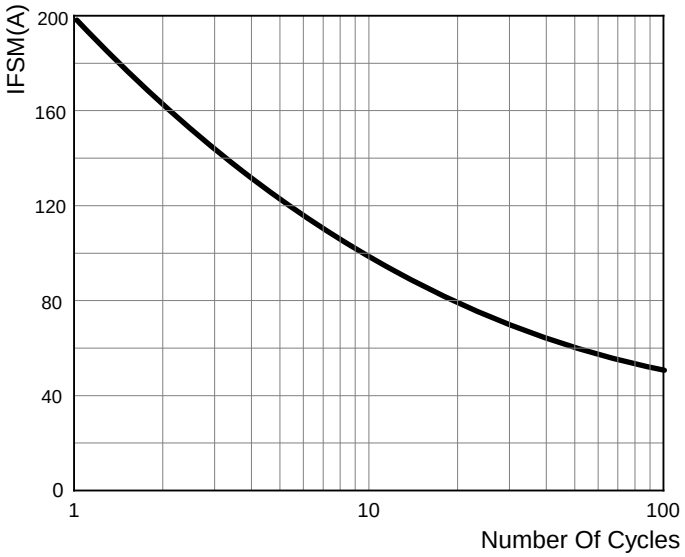
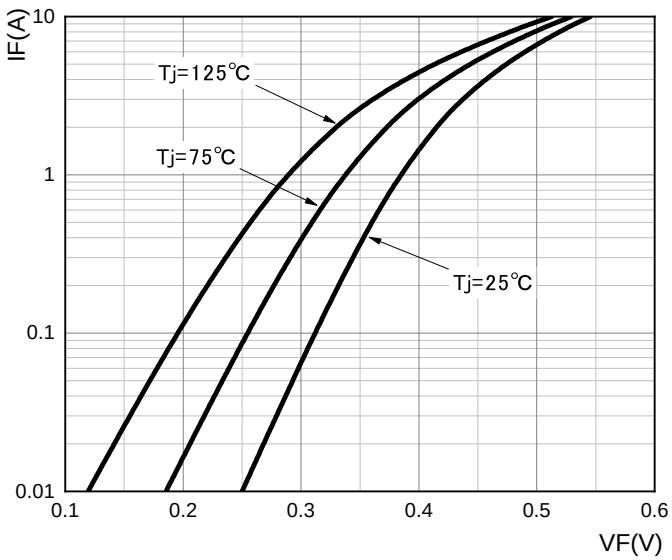


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



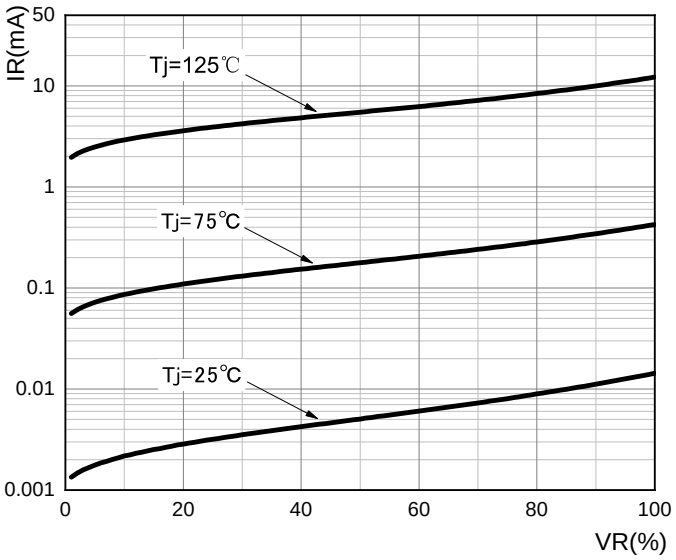
SK82-SK84

FIG.3 : TYPICAL FORWARD CHARACTERISTICS



SK82-SK84

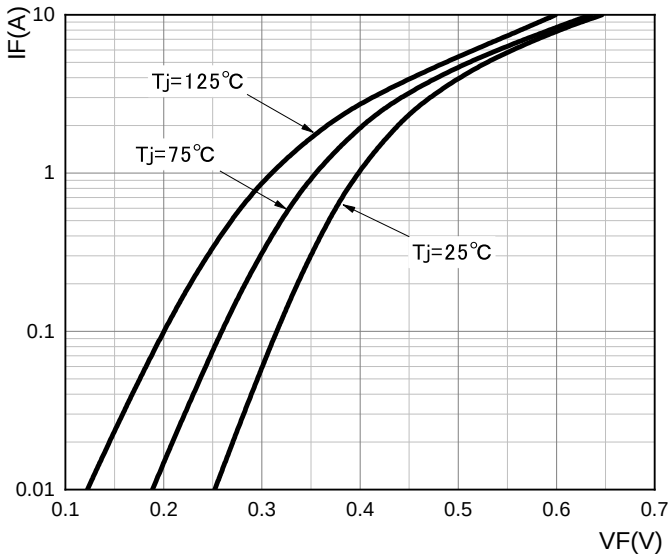
FIG.4 TYPCAL REVERSE CHARACTERISTICS



Typical Characteristics

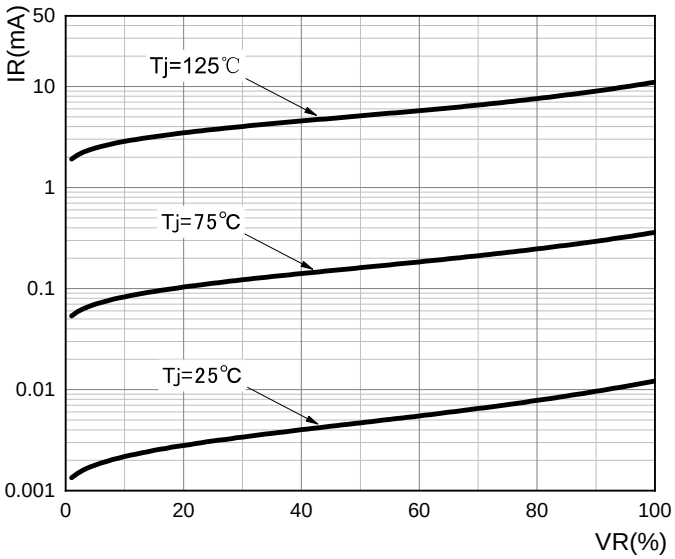
SK85-SK86

FIG.5 : TYPICAL FORWARD CHARACTERISTICS



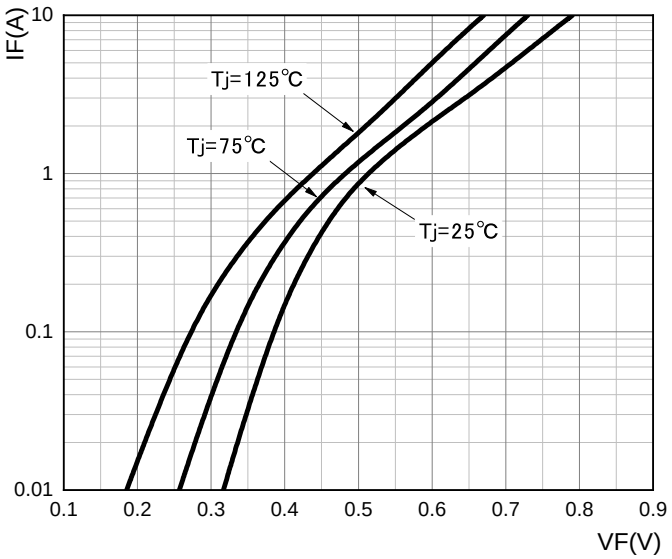
SK85-SK86

FIG.6 TYPCAL REVERSE CHARACTERISTICS



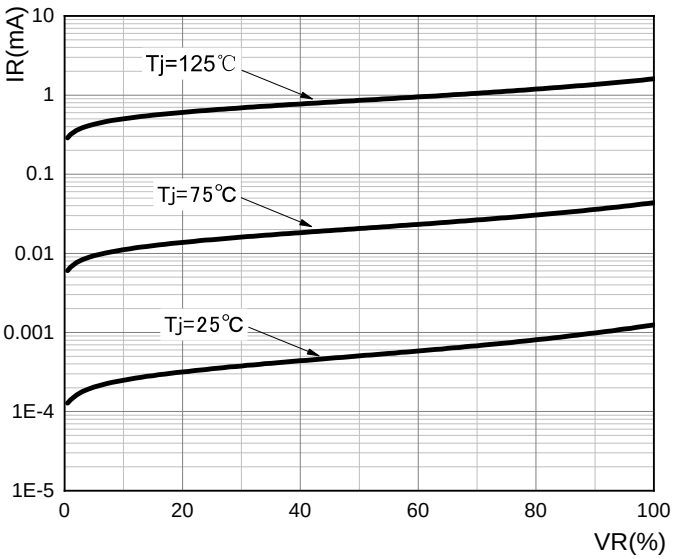
SK88-SK810

FIG.7 : TYPICAL FORWARD CHARACTERISTICS



SK88-SK810

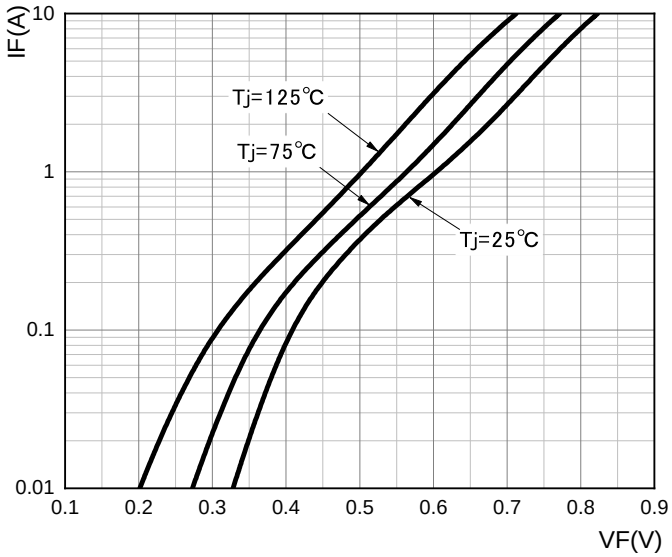
FIG.8 TYPCAL REVERSE CHARACTERISTICS



Typical Characteristics

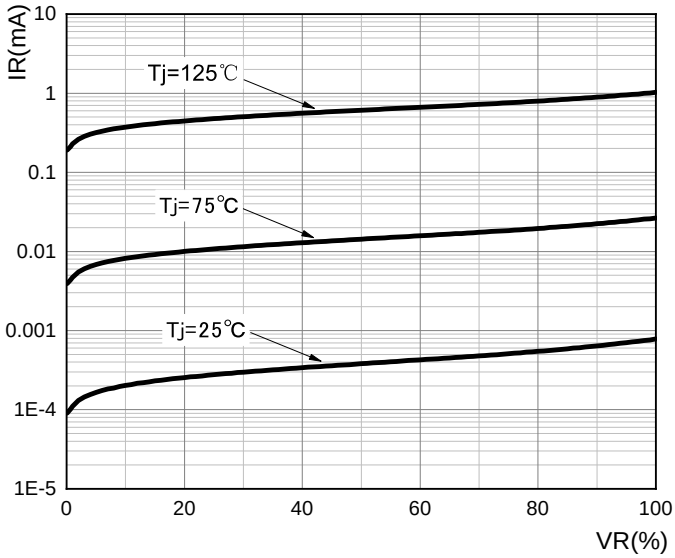
SK815

FIG.9 : TYPICAL FORWARD CHARACTERISTICS



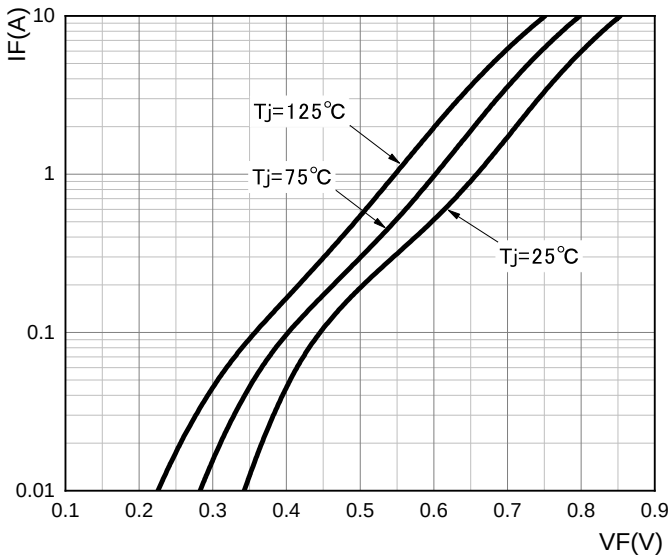
SK815

FIG.10 : TYPCAL REVERSE CHARACTERISTICS



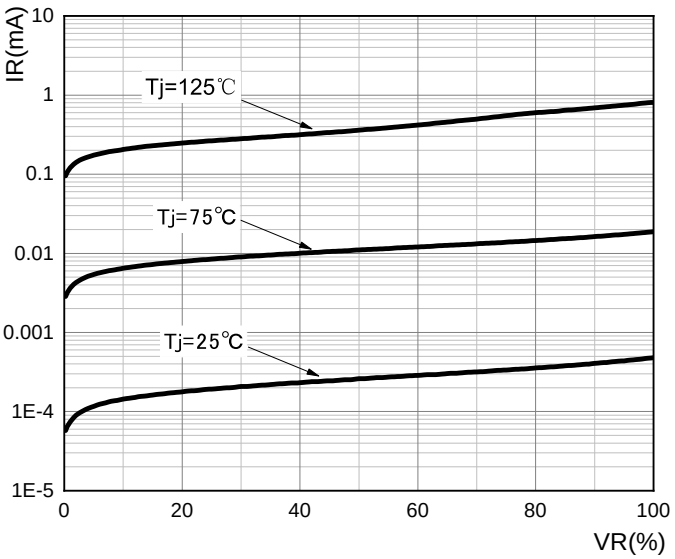
SK820

FIG.11: TYPICAL FORWARD CHARACTERISTICS

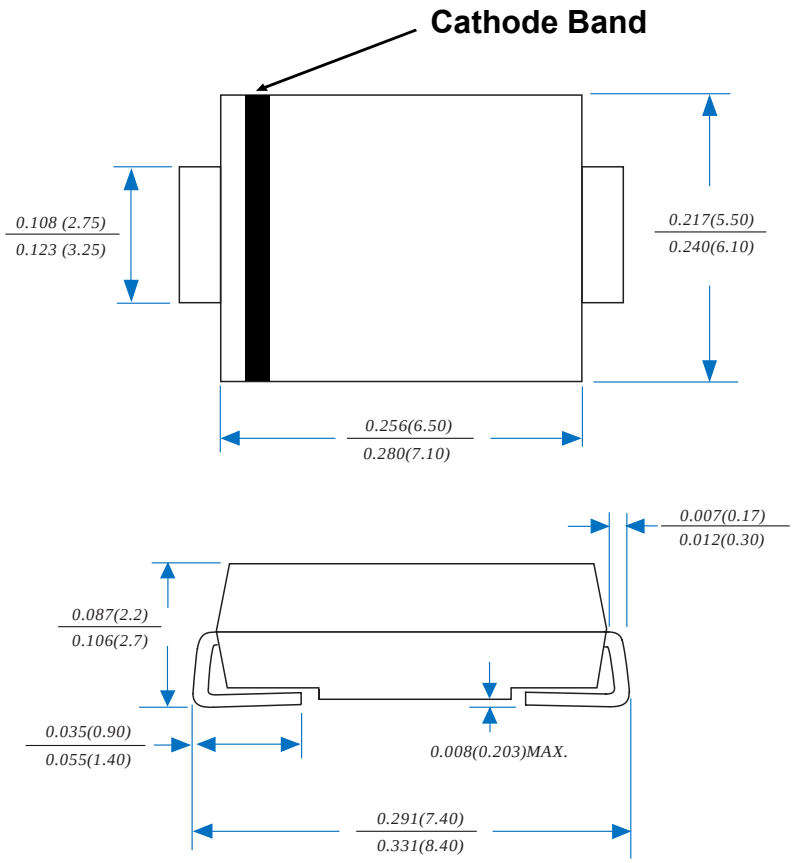


SK820

FIG.12 :TYPCAL REVERSE CHARACTERISTICS

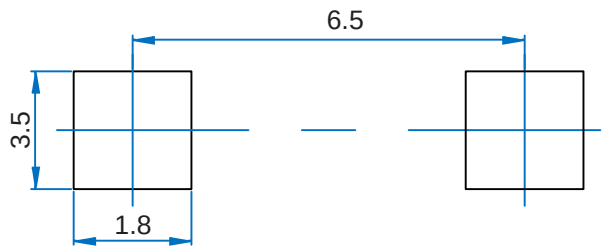


SMC Package Outline Dimensions



Dimensions in inches and (millimeters)

SMC Suggested Pad Layout



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