

Features

- $I_{F(AV)}$ 8A
- V_{RRM} 20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

SMC



Marking:SK8X

X : 2 To 20

Applications

Rectifier

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 ($T = 25^{\circ}C$ 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				
	Ta=100℃			20				10					
Thermal Resistance(Typical)	R _{θJ-A}	℃/W	Between junction and ambient		95								
	R _{θJ-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

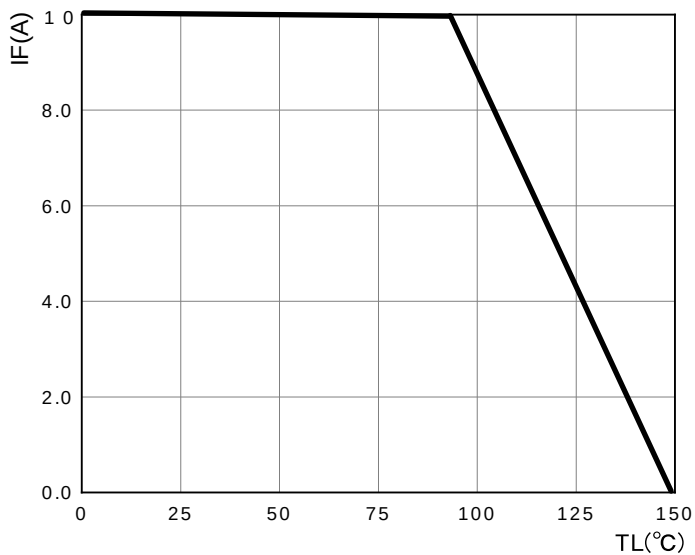
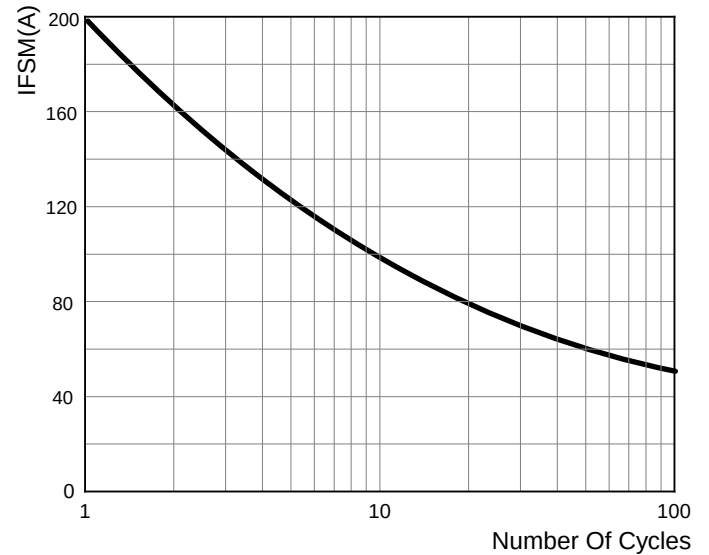
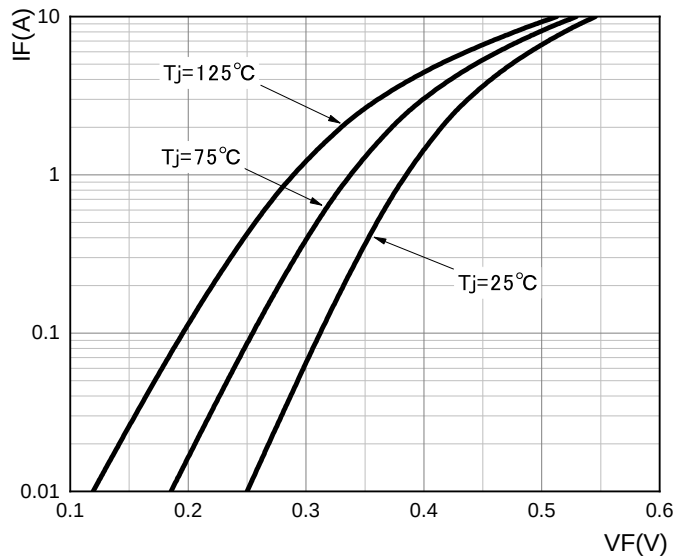


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



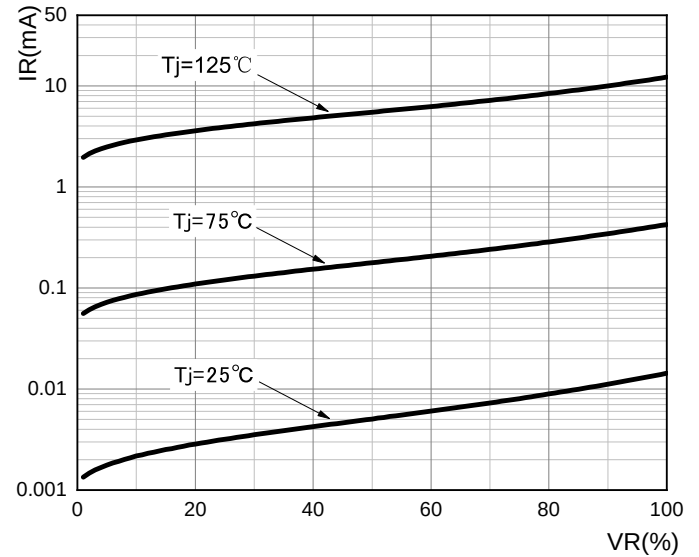
SK82-SK84

FIG.3 : TYPICAL FORWARD CHARACTERISTICS



SK82-SK84

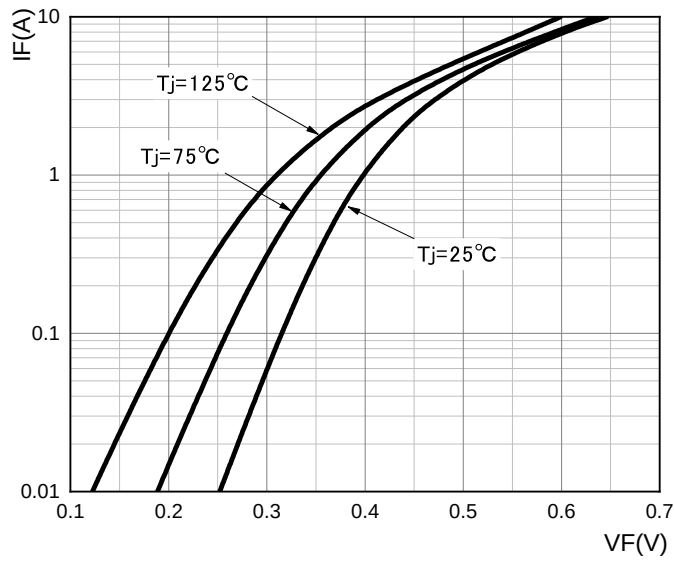
FIG.4 TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

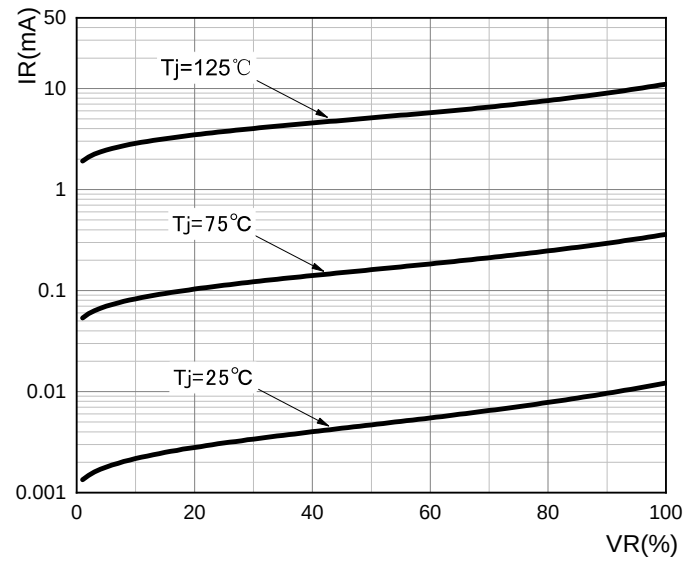
SK85-SK86

FIG.5 : TYPICAL FORWARD CHARACTERISTICS



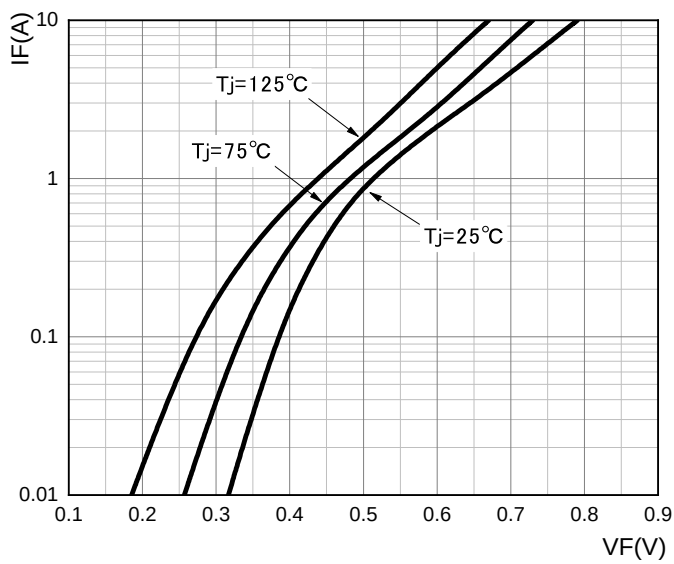
SK85-SK86

FIG.6 TYPICAL REVERSE CHARACTERISTICS



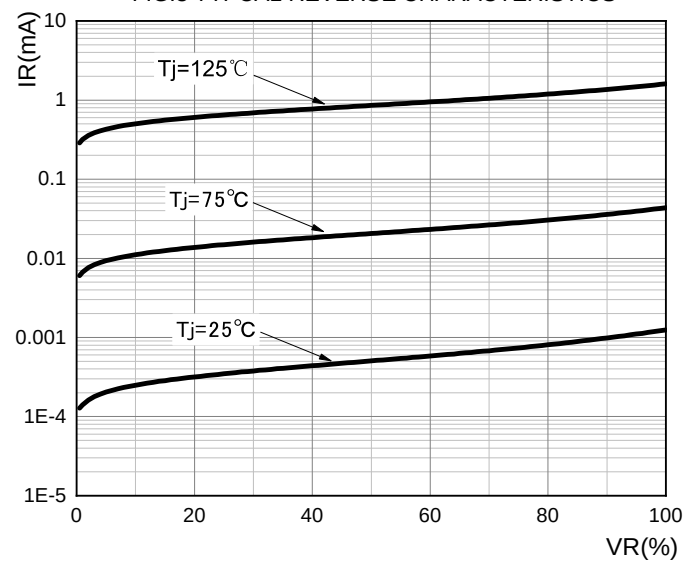
SK88-SK810

FIG.7 : TYPICAL FORWARD CHARACTERISTICS



SK88-SK810

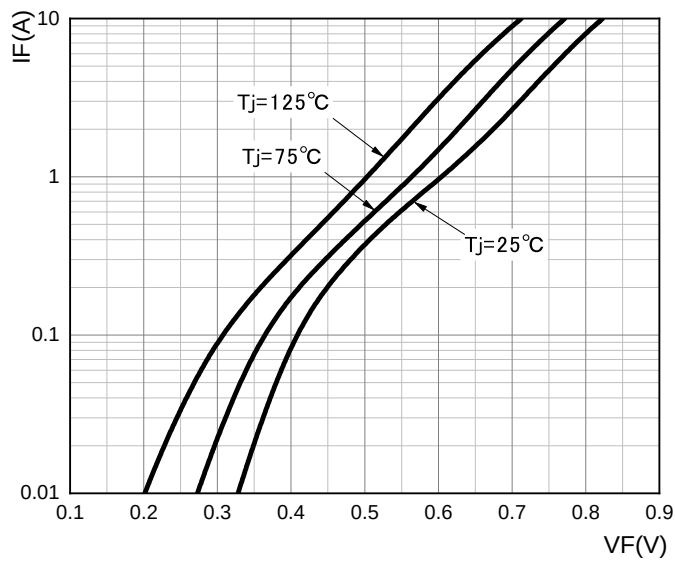
FIG.8 TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

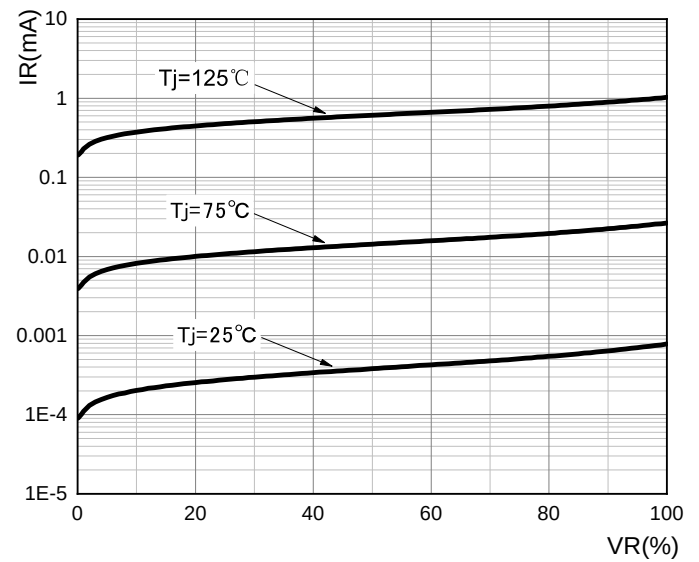
SK815

FIG.9 : TYPICAL FORWARD CHARACTERISTICS



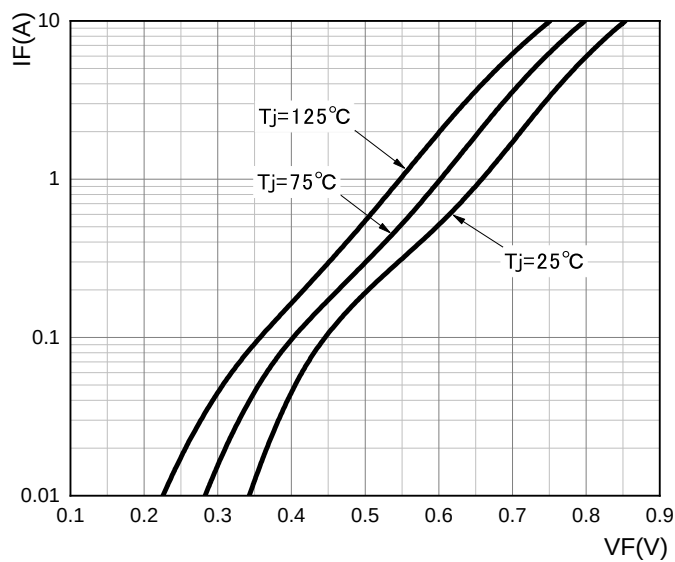
SK815

FIG.10 : TYPICAL REVERSE CHARACTERISTICS



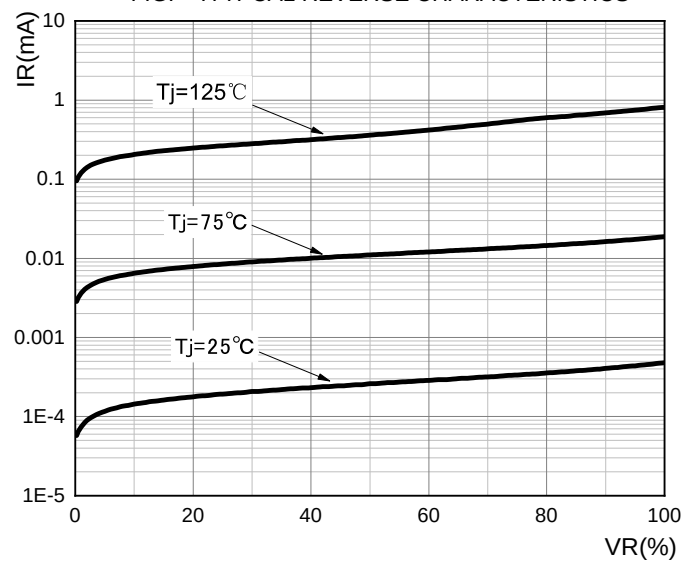
SK820

FIG.11 : TYPICAL FORWARD CHARACTERISTICS

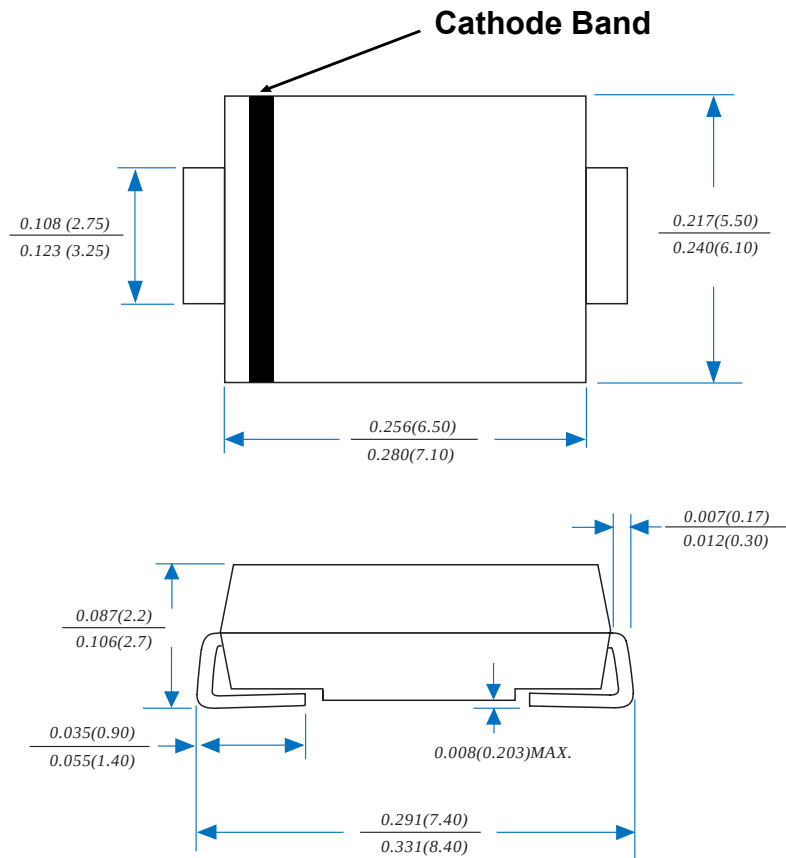


SK820

FIG.12 : TYPICAL REVERSE CHARACTERISTICS

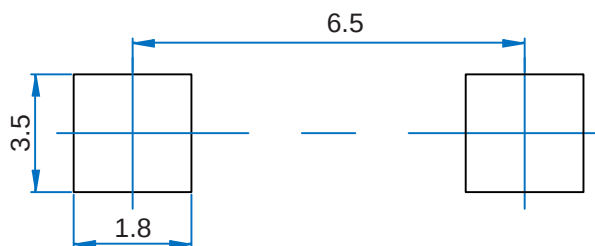


SMC Package Outline Dimensions



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.