

Features

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

Applications

- Rectifier

Marking

- SK5X

X : From 2 To 20



SMC top view



Schematic diagram



Halogen-Free

Limiting Values(Absolute Maximum Rating)

Symbol	Parameter	Test Conditions	SK5									Unit
			2	3	4	5	6	8	10	15	20	
V _{RRM}	Repetitive Peak Reverse Voltage		20	30	40	50	60	80	100	150	200	V
V _{RMS}	Maximum RMS voltage		14	21	28	35	42	56	70	105	140	V
I _{F(AV)}	Average Forward Current	60Hz Half-sine wave Resistance load	5.0									A
I _{FSM}	Surge(Non-repetitive)Forward Current	60Hz Half-sine wave, 1 cycle, Ta=25℃	150									A
T _j	Junction Temperature		-50~+150									℃
T _{stg}	Storage Temperature Range		-50~+150									℃

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

Item	Symbol	Test Condition	SK5									Unit
			2	3	4	5	6	8	10	15	20	
Peak Forward Voltage	V _F	I _F =5.0A	0.55			0.7		0.85		0.95		V
Peak Reverse Current	I _{RRM1}	V _{RM} =V _{RRM} Ta =25℃	0.5					0.1				mA
	I _{RRM2}	V _{RM} =V _{RRM} Ta =100℃	10					0.5				
Thermal Resistance(Typical)	R _{θJ-A}	Between junction and ambient	96									℃/W
	R _{θJ-L}	Between junction and terminal	9									
Juction Capacitance (Typical)	C _j	Measured at 1MHZ and Applied Rever Voltage of 4.0 V.D.C	260			220		130		100	80	pF

Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
SK52	SMC	SK52	3,000	45,000	180,000	7"reel
SK53		SK53				
SK54		SK54				
SK55		SK55				
SK56		SK56				
SK58		SK58				
SK510		SK510				
SK515		SK515				
SK520		SK520				

Typical Characteristics

Fig.1 Forward Current Derating Curve

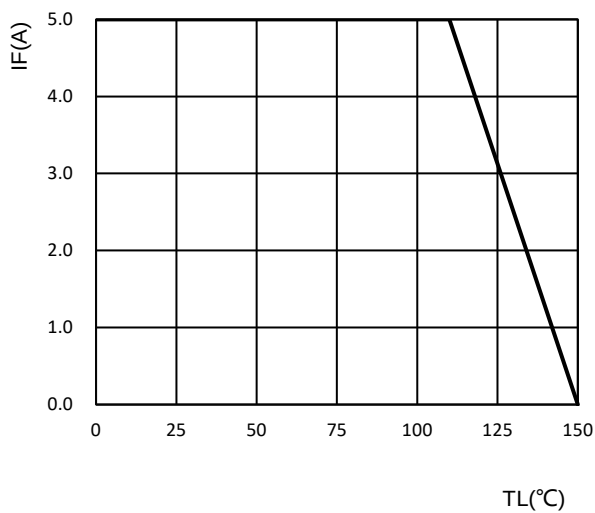
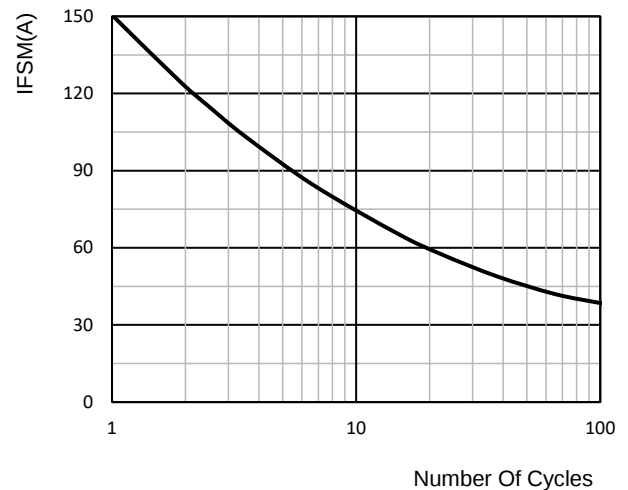
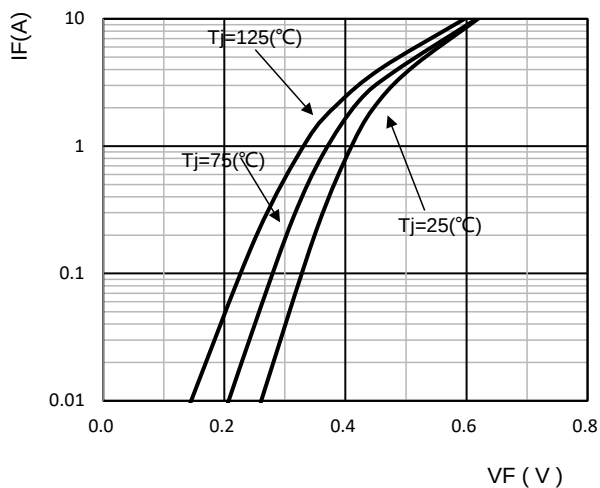


Fig.2 Maximum Non-Repetitive Forward Surge Current



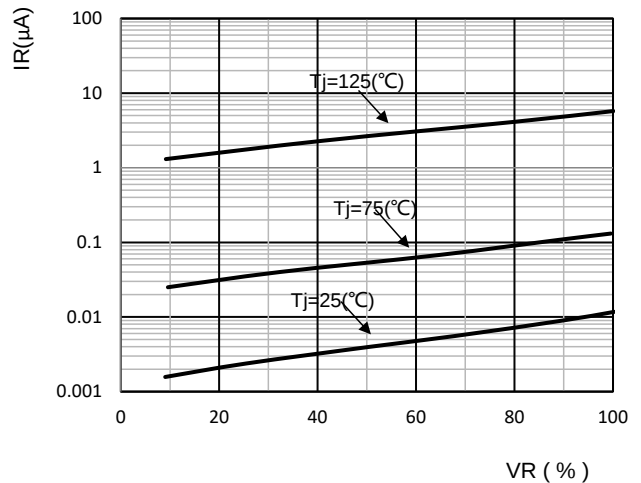
SK52-SK54

Fig.3 Typical Forward Characteristics



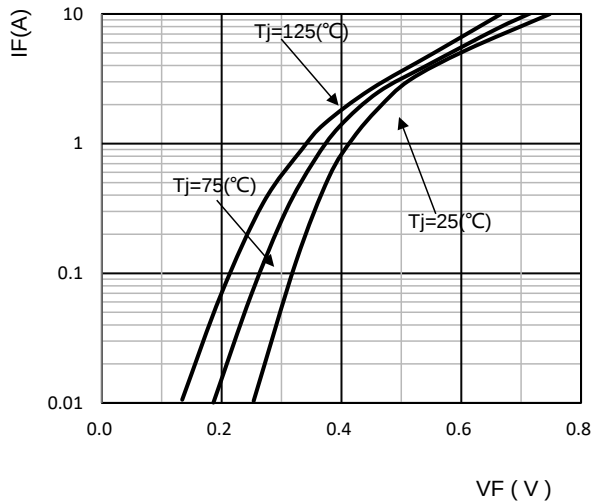
SK52-SK54

Fig.4 Typical Reverse Characteristics



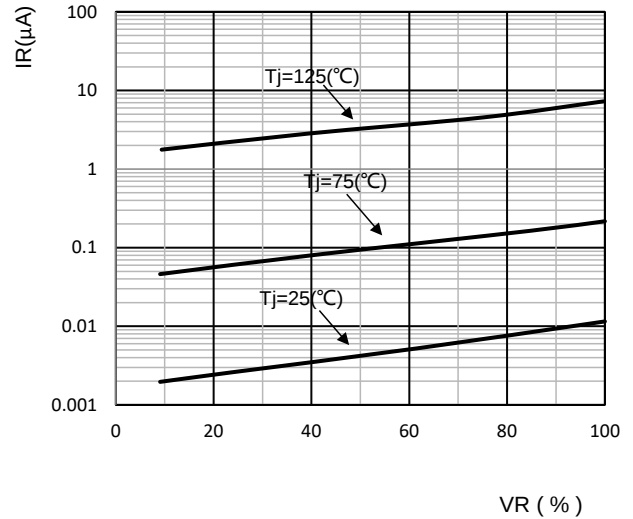
SK55-SK56

Fig.5 Typical Forward Characteristics



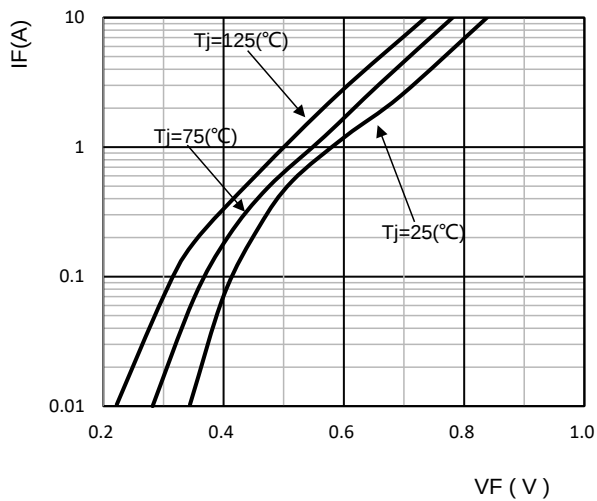
SK55-SK56

Fig.6 Typical Reverse Characteristics



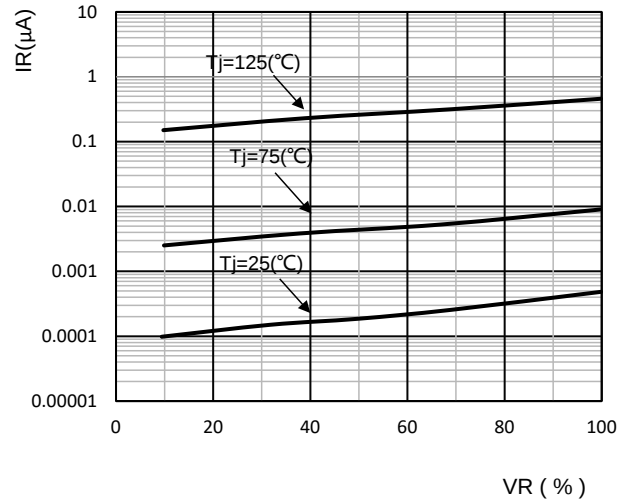
SK58-SK510

Fig.7 Typical Forward Characteristics



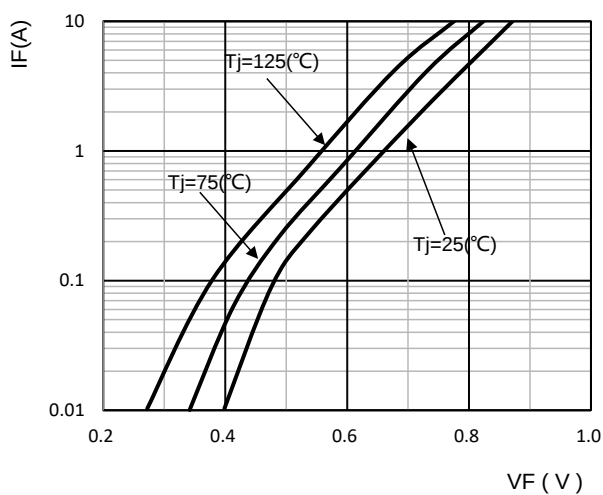
SK58-SK510

Fig.8 Typical Reverse Characteristics



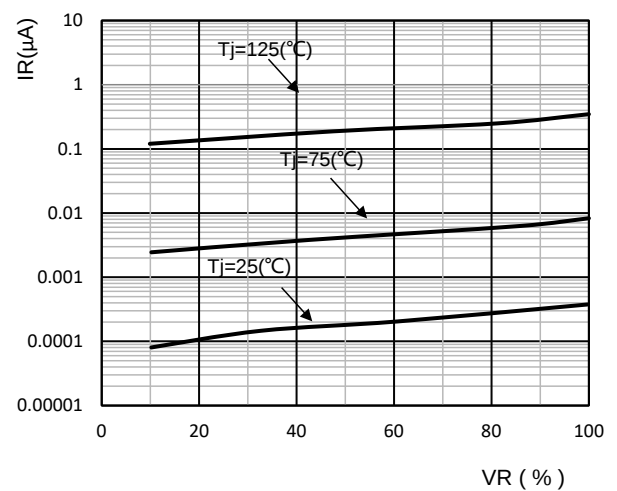
SK515

Fig.9 Typical Forward Characteristics



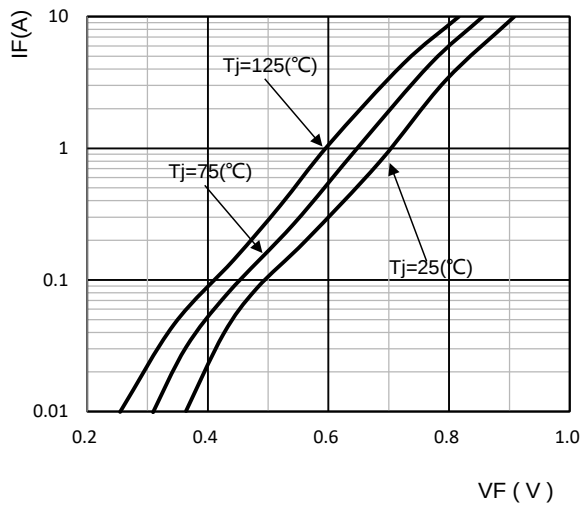
SK515

Fig.10 Typical Reverse Characteristics



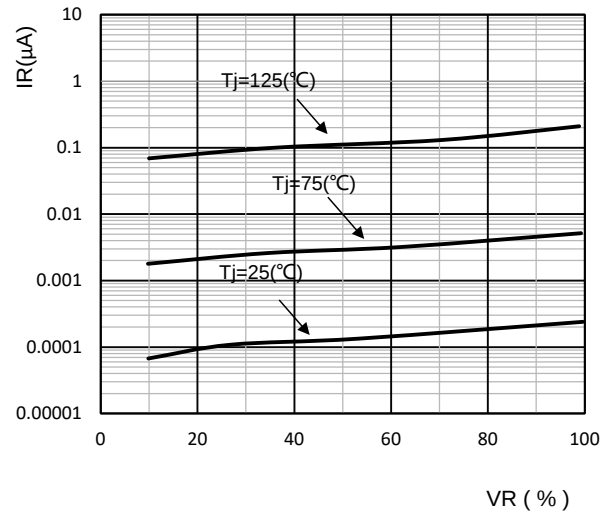
SK520

Fig.11 Typical Forward Characteristics



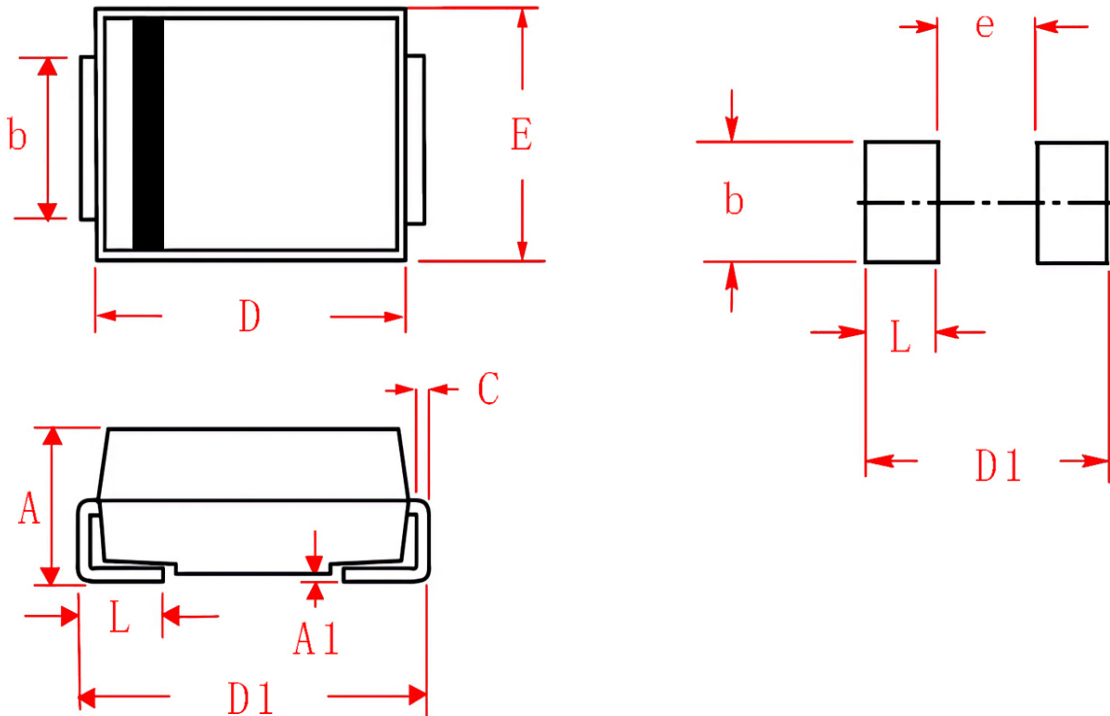
SK520

Fig.12 Typical Reverse Characteristics



SMC Package information

SMC (DO-214AB)



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	2.000	2.620	0.079	0.103
A1	0.050	0.210	0.002	0.008
b	2.750	3.250	0.108	0.128
C	0.150	0.310	0.006	0.012
D	6.500	7.000	0.256	0.275
D1	7.600	8.000	0.299	0.315
E	5.600	6.200	0.220	0.244
e	-	4.690	-	0.185
L	0.900	1.600	0.035	0.063