

Features

- $I_{F(AV)}$ 10A
- V_{RRM} 20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

SMC



Marking:SK10X

X : 2 To 20

Applications

Rectifier

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SK10								
				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,TL(FIG.1)	10.0								
Surge(Non-repetitive)Forward Current	I _{FSM}	A	60Hz Half-sine wave, 1 cycle , Ta =25℃	250								
Junction Temperature	T _J	℃		-55~+125			-55~+150					
Storage Temperature	T _{STG}	℃		-55 ~ +150								

Electrical Characteristics ($T = 25^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		SK10								
					2	3	4	5	6	8	10	15	20
Peak Forward Voltage	V _{FM}	V	I _{FM} =10.0A		0.65			0.75		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		50								
	R _{θJ-L}		Between junction and lead		15								
Typical junction capacitance	CJ	pF	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.		400								

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

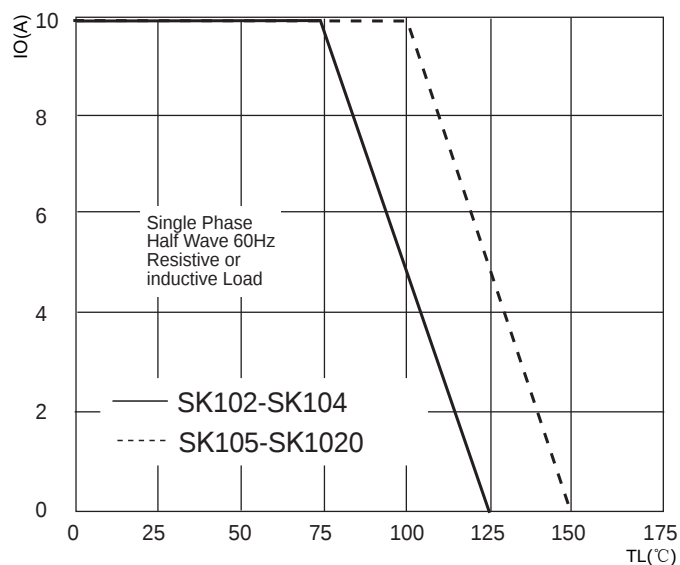


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

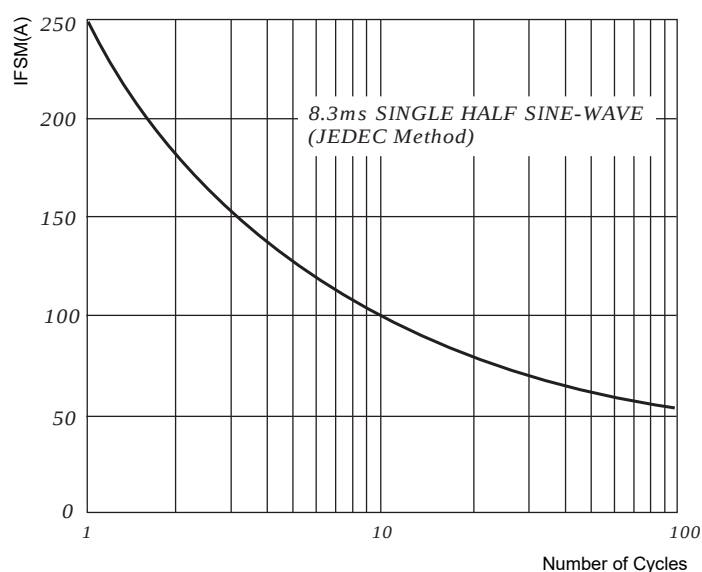


FIG.3: TYPICAL FORWARD CHARACTERISTICS

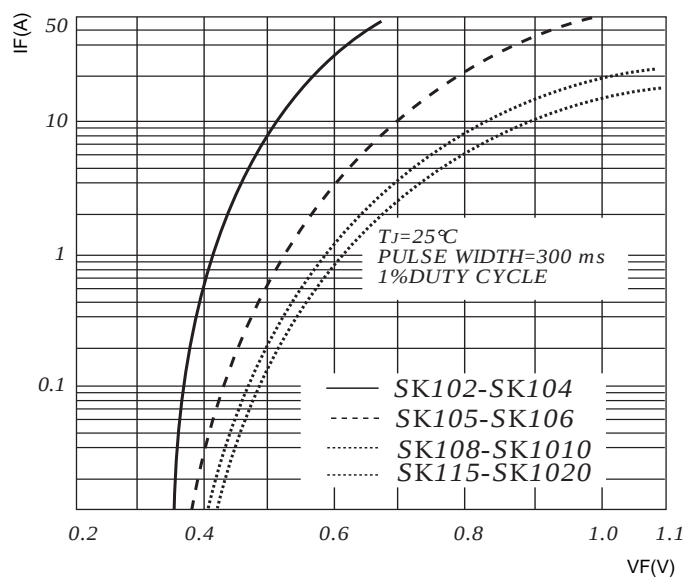
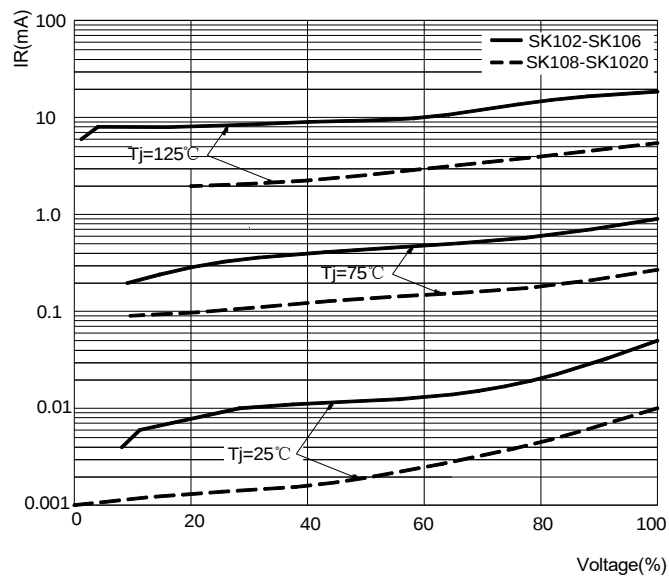
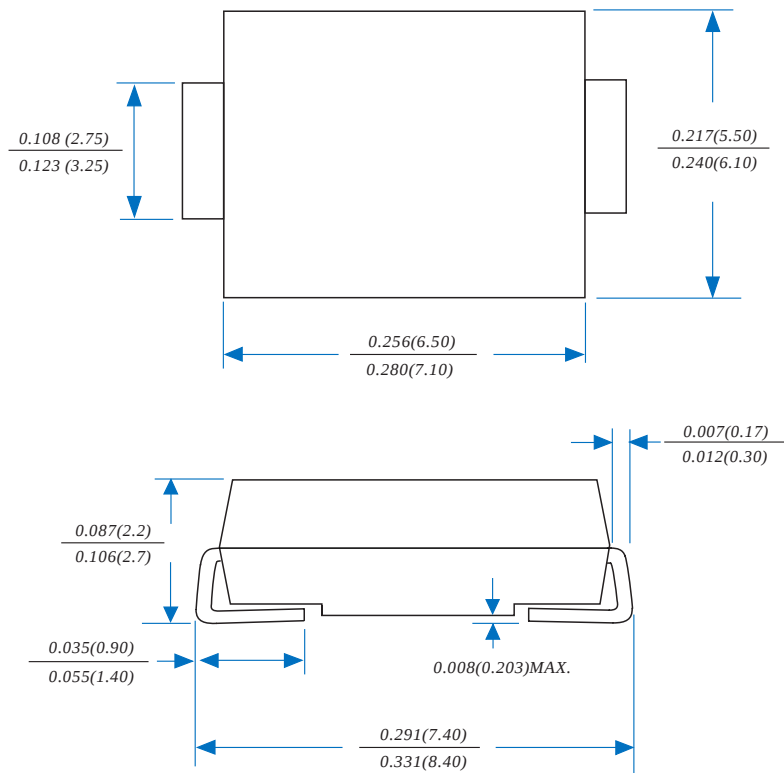


FIG.4: TYPICAL REVERSE CHARACTERISTICS

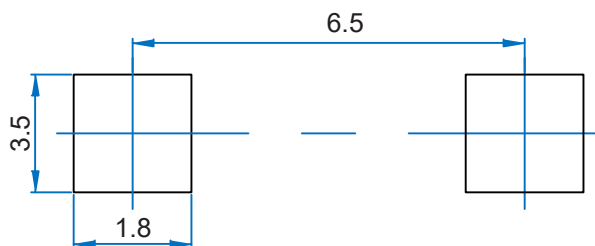


SMC Package Outline Dimensions



Dimensions in inches and (millimeters)

SMC Suggested Pad Layout



Note:

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