

Features

 $I_{F(AV)}$ 3A

 V_{RRM} 20V~100V

High surge current capability

Polarity: Color band denotes cathode

Low peak forward voltage

Applications

Rectifier

SMBF


Marking:SK3XBF

X: 2 To 10

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SK3						
				2BF	3BF	4BF	5BF	6BF	8BF	10BF
Repetitive Peak Reverse Voltage	V _{RRM}	V		20	30	40	50	60	80	100
Maximum RMS Voltage	V _{RMS}	V		14	21	28	35	42	56	70
Maximum DC Blocking Voltage	V _{DC}	V		20	30	40	50	60	80	100
Average Forward Current	I _{F(AV)}	A	60Hz Half-sine wave, Resistance load, Ta(Fig.1)	3.0						
Surge(Non-repetitive)Forward Current	I _{FSM}	A	60Hz Half-sine wave, 1 cycle, Ta=25℃	70						
Junction Temperature	T _J	℃		-55 ~ +125			-55 ~ +150			
Storage Temperature	T _{STG}	℃		-55 ~ +150						

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

Item	Symbol	Unit	Test Condition		SK3						
					2BF	3BF	4BF	5BF	6BF	8BF	10BF
Peak Forward Voltage	V _F	V	I _F =3.0A	Ta=25℃	0.55			0.70		0.85	
Peak Reverse Current	I _{RRM1}	mA	V _{RM} =V _{RRM}	Ta=25℃	1						
	I _{RRM2}			Ta=100℃	50						
Typical Junction Capacitance Thermal Resistance(Typical)	C _J	pF	Measured at 1MHz and applied reverse voltage of 4.0V D.C.		500			300			
	R _{θJ-A}	℃/W	Between junction and ambient		78						

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

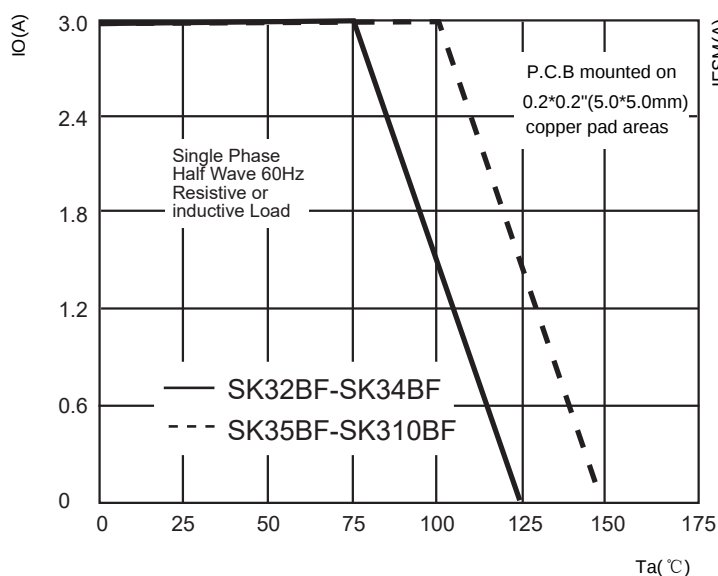


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

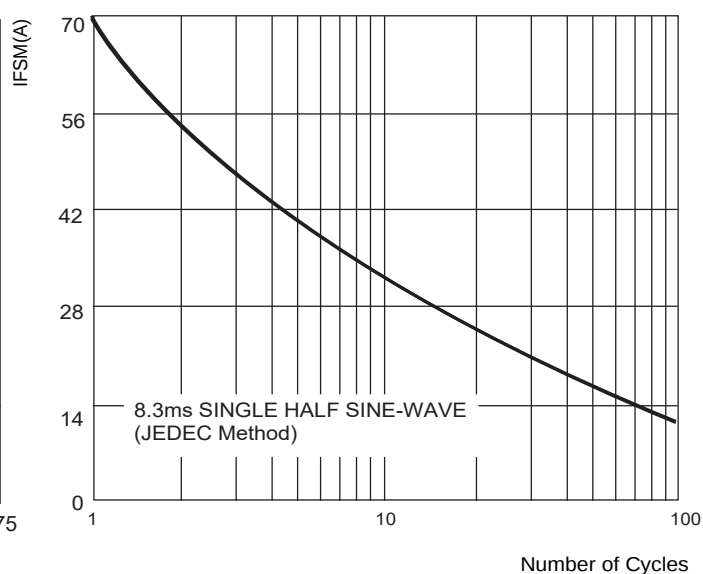


FIG.3: TYPICAL FORWARD CHARACTERISTICS

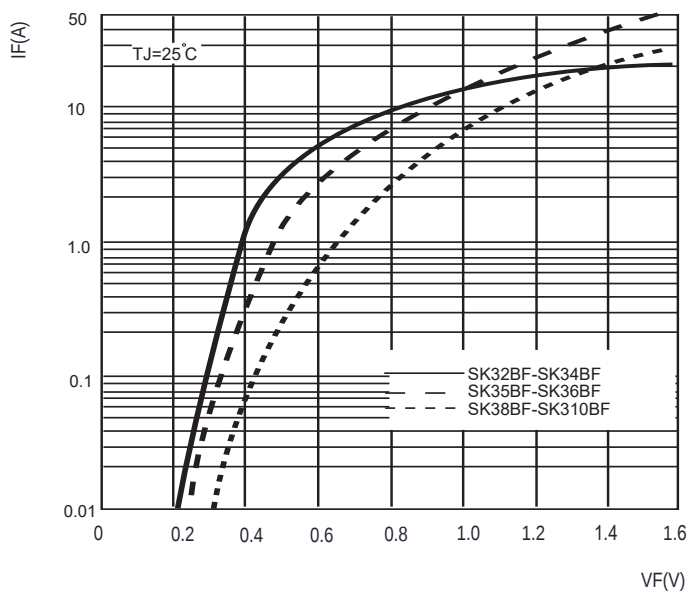


FIG.4: TYPICAL REVERSE CHARACTERISTICS

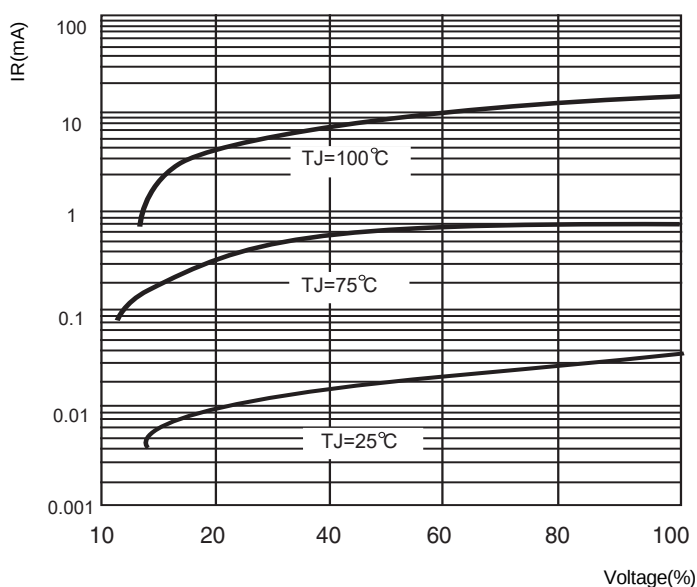
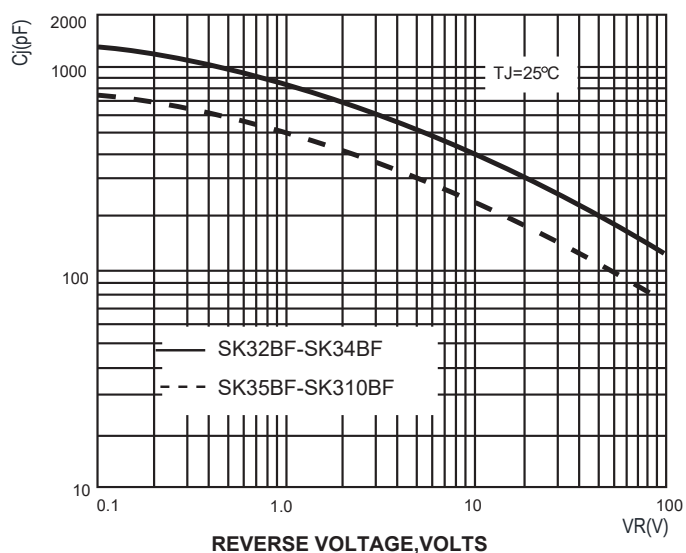
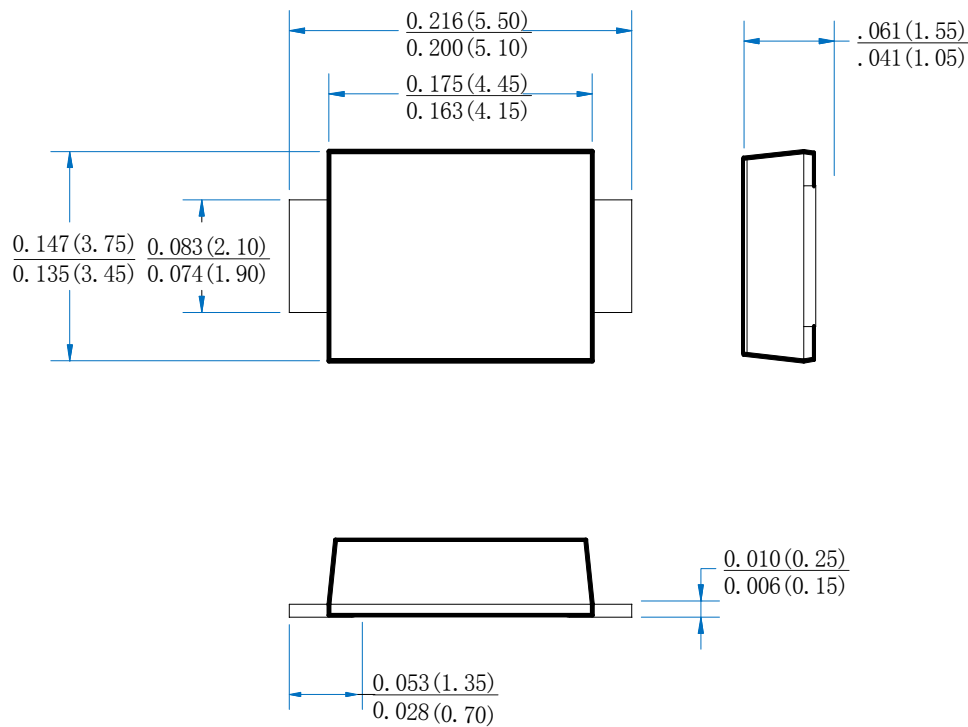
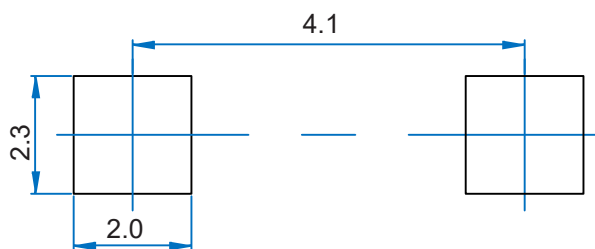


FIG.5: TYPICAL JUNCTION CAPACITANCE



SMBF Package outline Dimensions


Dimensions in inches and (millimeters)

SMBF 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.