

SMBF Plastic-Encapsulate Diodes

SK32BF THRU SK310BF

Schottky Rectifier Diode

Features

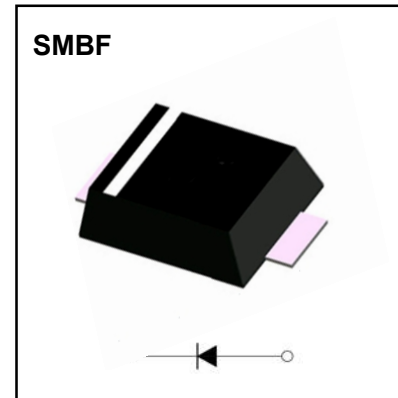
- $I_{F(AV)}$ 3A
- V_{RRM} 20V~100V
- High surge current capability
- Polarity: Color band denotes cathode
- Low peak forward voltage

Applications

- Rectifier

Marking

- SK3XBF
X:From 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, T_a (Fig.1)	3.0						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	70						
Junction Temperature	T_J	$^\circ\text{C}$		-55 ~ +125			-55 ~ +150			
Storage Temperature	T_{STG}	$^\circ\text{C}$		-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	$I_F=3.0\text{A}$	$T_a=25^\circ\text{C}$	0.55		0.70		0.85		
Peak Reverse Current	I_{RRM1}	mA	$V_{RM}=V_{RRM}$	$T_a=25^\circ\text{C}$	1						
	I_{RRM2}			$T_a=100^\circ\text{C}$	50						
Typical Junction Capacitance	C_J	pF	Measured at 1MHz and applied reverse voltage of 4.0V D.C.		500			300			
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^\circ\text{C}/\text{W}$	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

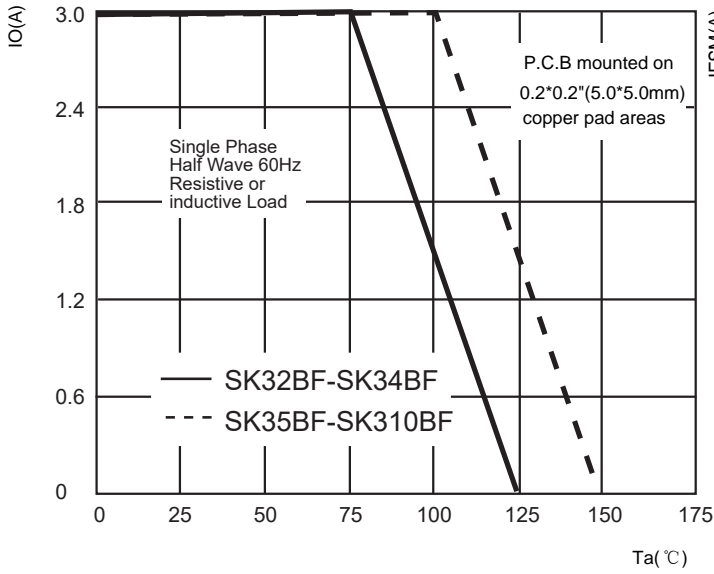


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

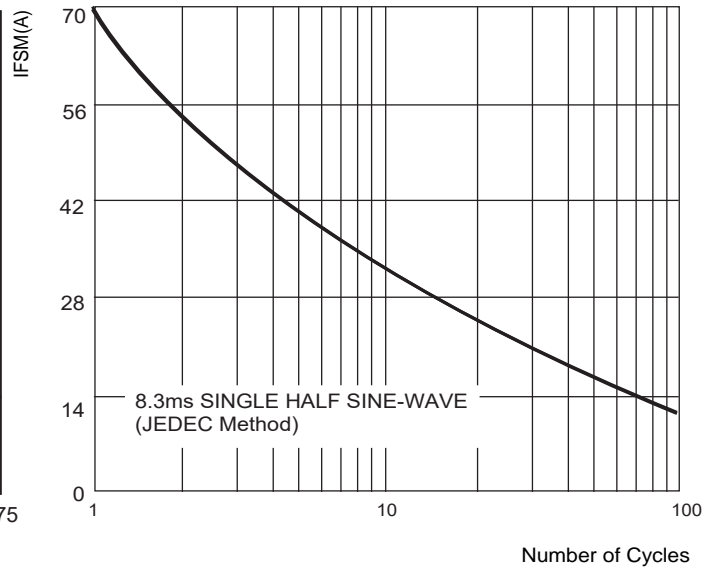


FIG.3: TYPICAL FORWARD CHARACTERISTICS

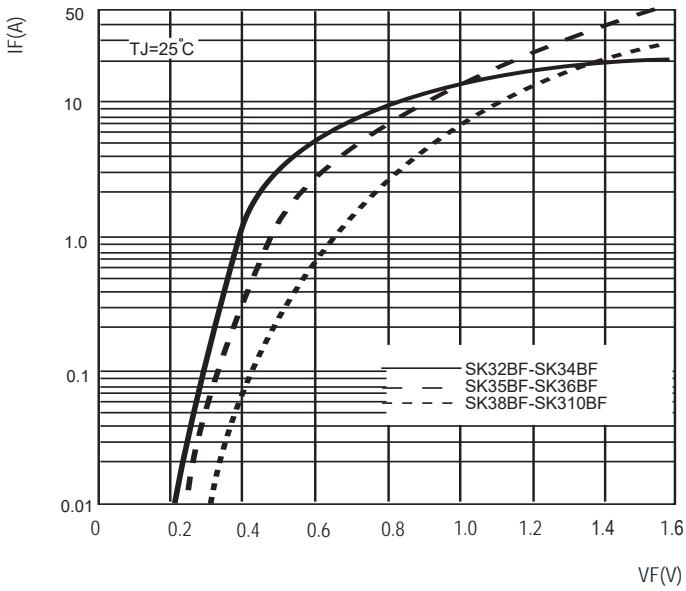


FIG.4: TYPICAL REVERSE CHARACTERISTICS

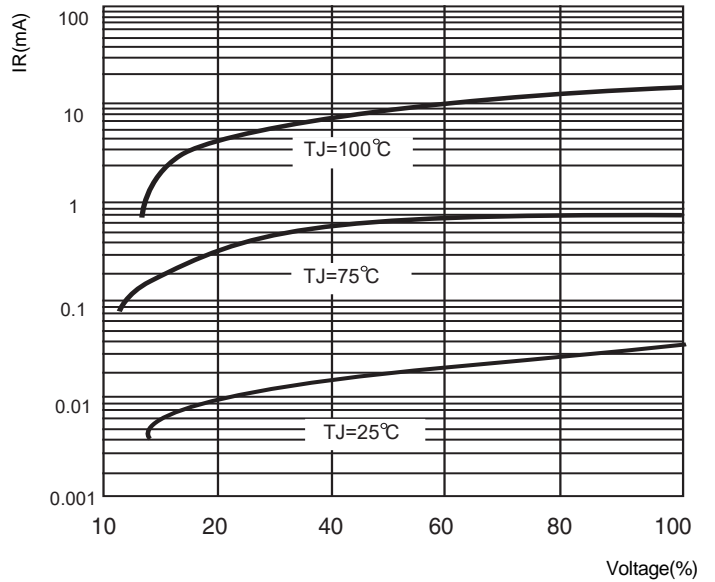
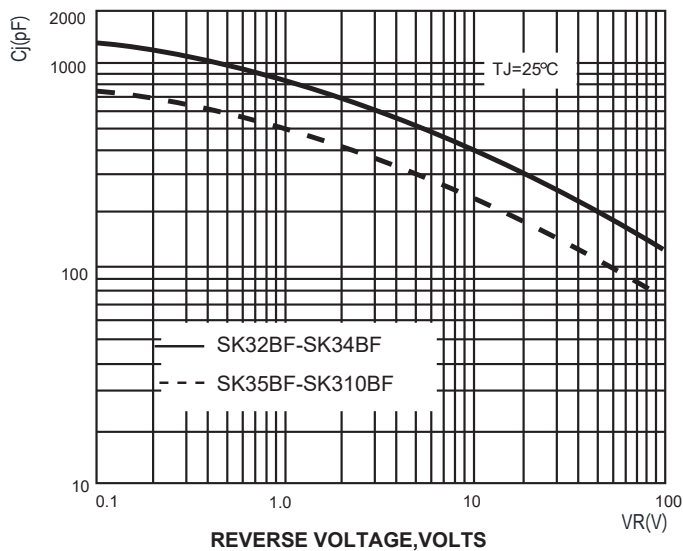
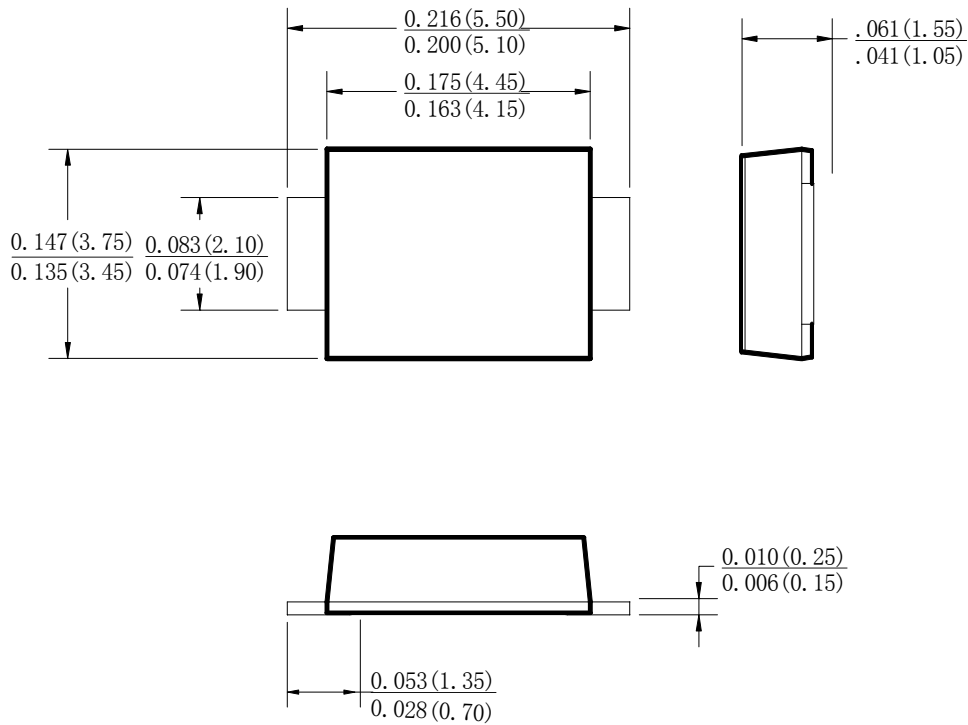


FIG.5: TYPICAL JUNCTION CAPACITANCE

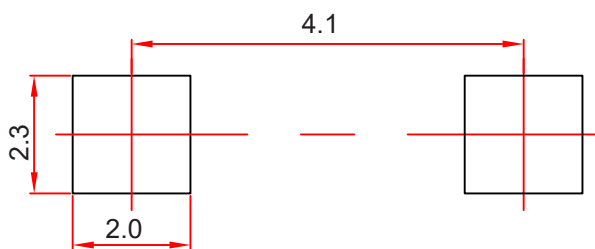


SMBF Package Outline Dimensions



Dimensions in inches and (millimeters)

SMBF Suggested Pad Layout



Note:

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

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