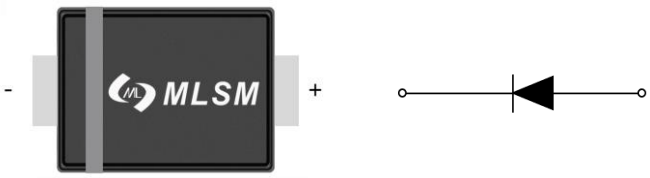
SK32BF THRU SK310BF

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



SMBF top view Schematic diagram

Applications

•Rectifier

Marking

•SK3XBF

X : From 2 To 10

Pb-Free RoHS Halogen-Free

Limiting Values(Absolute Maximum Rating)

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

Electrical Characteristics (T=25℃ Unless otherwise specified）

Symbol	Item	Test Condition	SK3							Unit
			2BF	3BF	4BF	5BF	6BF	8BF	10BF	
V_F	Peak Forward Voltage	I_F =3.0A T_a =25℃	0.55			0.70		0.85		V
I_{RRM1}	Peak Reverse Current	V_{RM}=V_{RRM} T_a =25℃	1							mA
I_{RRM2}		V_{RM}=V_{RRM} T_a =100℃	50							
Cj	Typical Junction Capacitance	Measured at 1MHZ and Applied Rever Voltage of 4.0 V.D.C	500			300				pF
$R_{\theta J-A}$	Thermal Resistance(Typical)	Between junction and ambient	78							℃/W

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

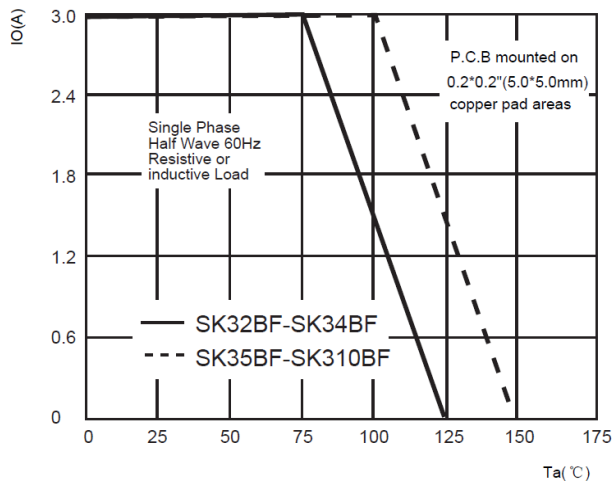


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

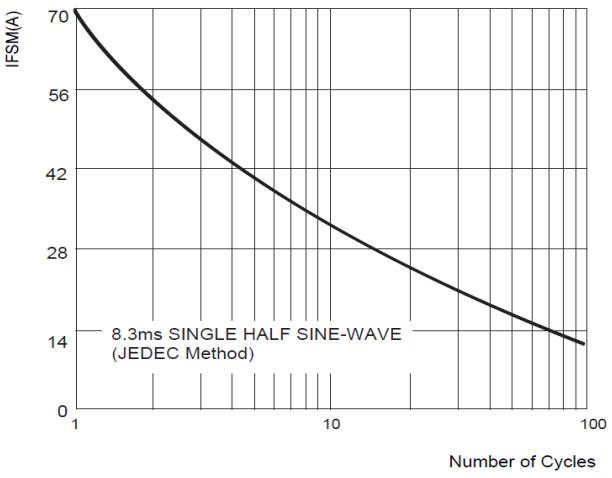


FIG.3: TYPICAL FORWARD CHARACTERISTICS

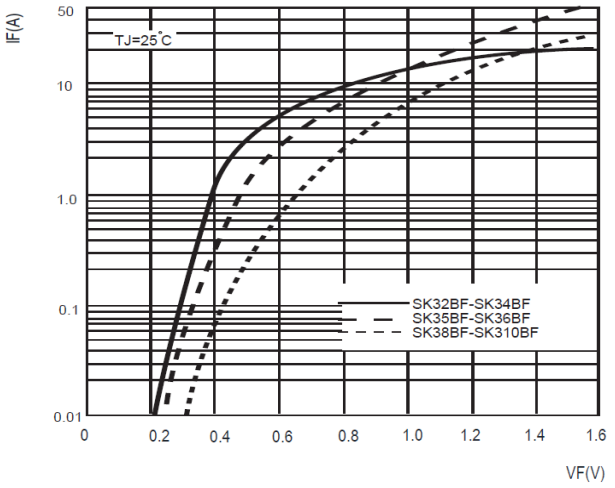


FIG.4: TYPICAL REVERSE CHARACTERISTICS

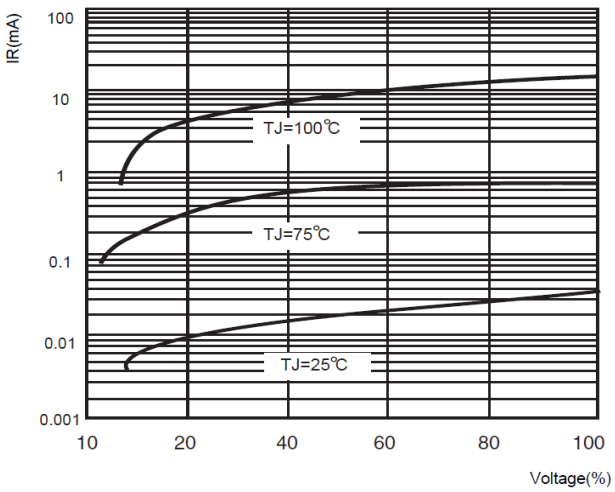
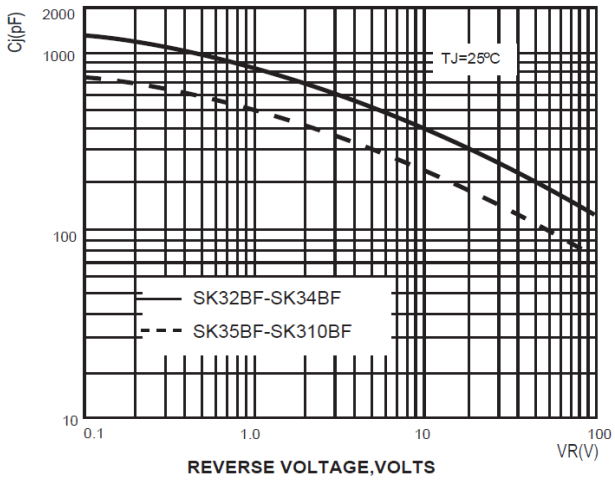
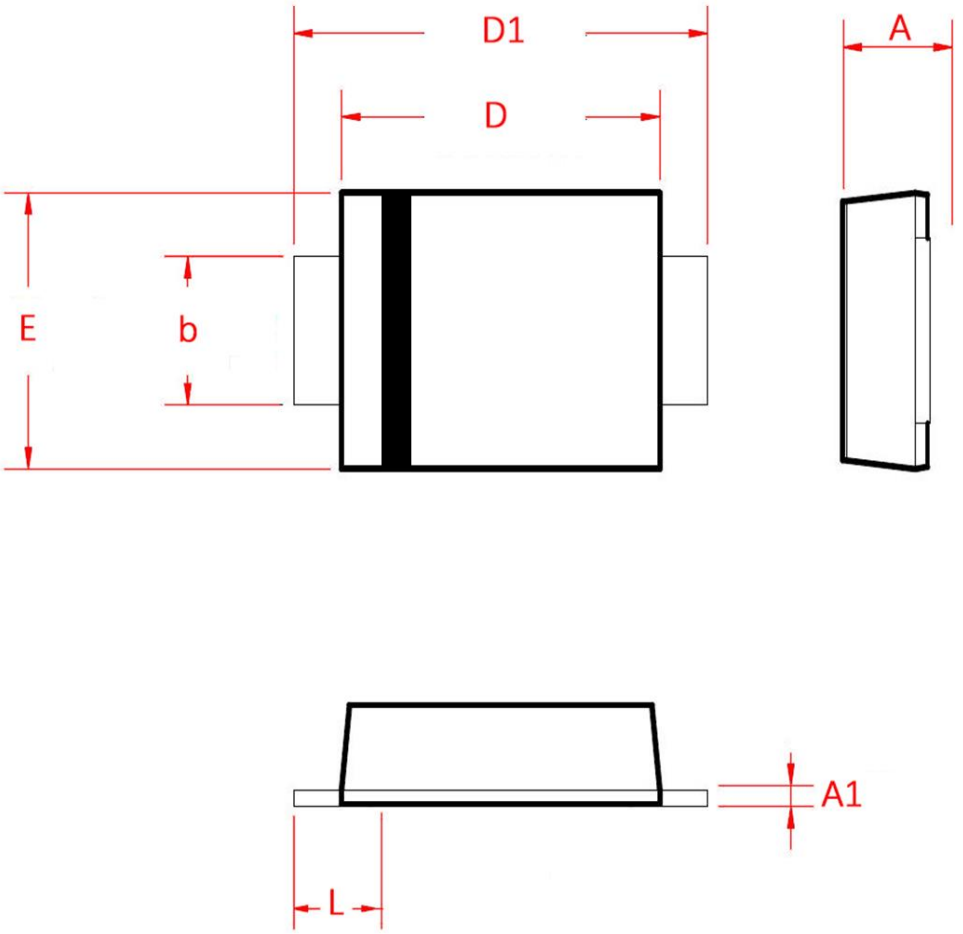


FIG.5: TYPICAL JUNCTION CAPACITANCE



SMBF Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.550	0.041	0.061
A1	0.150	0.250	0.006	0.010
b	1.900	2.100	0.075	0.083
D	4.150	4.450	0.163	0.175
D1	5.100	5.500	0.201	0.216
E	3.450	3.750	0.136	0.148
L	0.700	1.350	0.028	0.053