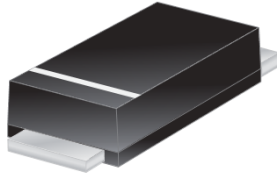




SM5xxxBF SERIES



Schottky Barrier Rectifiers



SMBF

Primary Characteristics

I_F	5	A
V_{RRM}	20~200	V
I_{FSM}	100	A
V_F	0.55, 0.70, 0.85, 0.90	V
T_J max	125, 150	°C

Features

- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- For Use in Low Voltage Application
- Plastic Case Material has UL Flammability Classification Rating 94V-0

Mechanical Data

- Case : SMBF
- Terminals : Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity : Color band denotes cathode
- Mounting Position : Any
- Making : Type Number

Ordering Information

Part No.	Remark	Package	Packing
SM5xxxBF	RoHS Compliant	SMBF	5000 / Tape & Reel
SM5xxxBF-H	Halogen Free		

Maximum Ratings (TA=25°C unless otherwise noted)

Parameter	Symbol	SM 520BF	SM 530BF	SM 540BF	SM 550BF	SM 560BF	SM 580 BF	SM 5100 BF	SM 5150 BF	SM 5200 BF	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Average Rectified Output Current	I_F	5.0									A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load	I_{FSM}	100									A
Forward Voltage @ $I_F=5.0A$	V_{FM}	0.55			0.70		0.85		0.90		V
Peak Reverse Current @TA =25 °C	I_R	0.5						0.2			mA
At Rated DC Blocking Voltage @TA =100 °C		10						5.0			
Typical Junction Capacitance (NOTE 1)	C_J	220						110			pF
Typical Thermal Resistance	$R_{\theta JC}$	30									°C/W
Operating Temperature Range	T_J	-55 to +125						-55 to +150			°C
Storage Temperature Range	T_{STG}	-55 to +150									°C

NOTES :

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC



Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

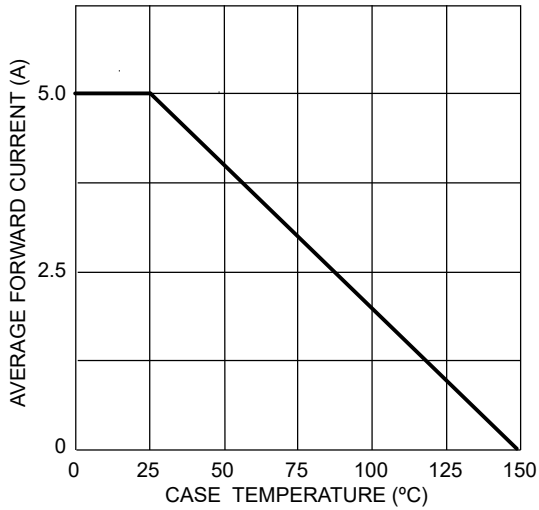


FIG. 2-Typical Forward Characteristics

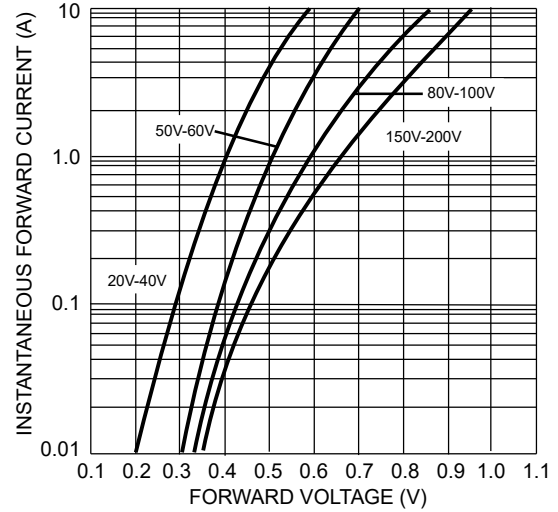


FIG. 3-Maximum Non-Repetitive Forward Surge Current

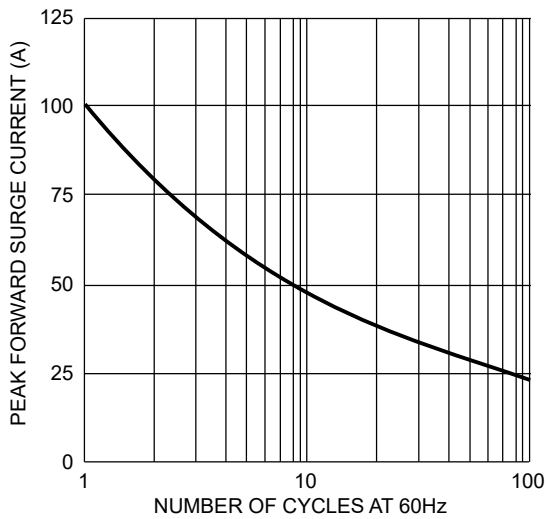
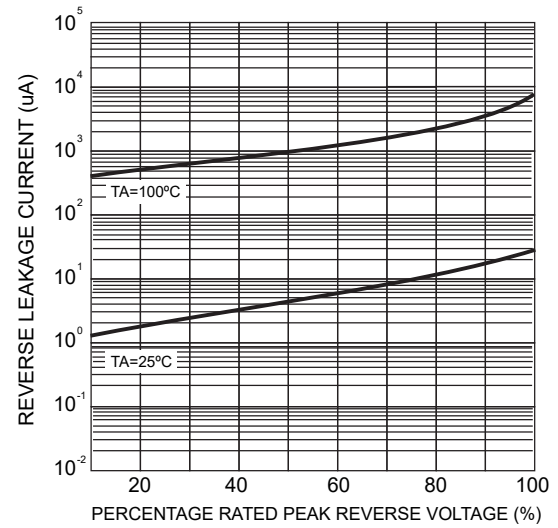
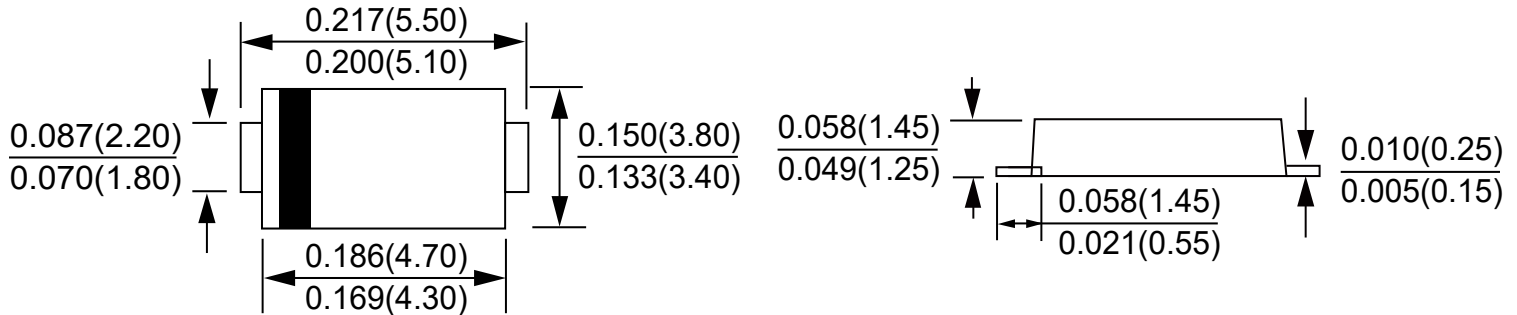


FIG. 4-Typical Reverse Characteristics





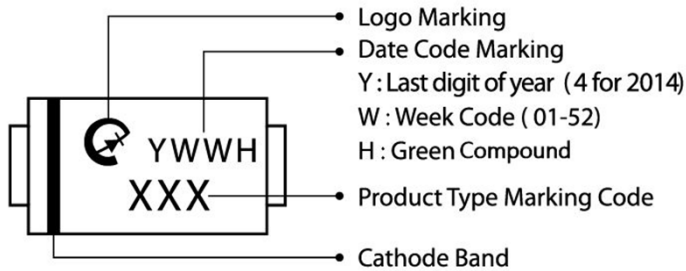
Package Outline Dimensions



SMBF

Dimensions in inches and (millimeters)

Marking Information

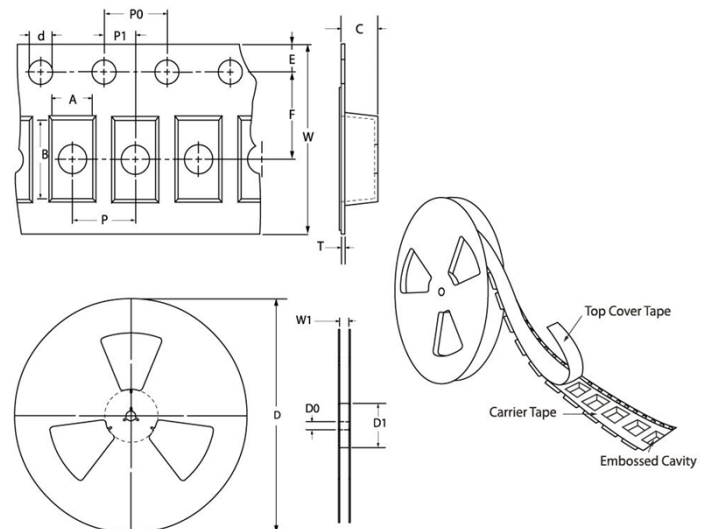


Suggested Pad Layout

Outline Dimension	SMBF (mm)
A	6.50
B	2.80
C	2.20
D	1.85
E	-

Tape & Reel Specification

Item	Symbol	SMBF (mm)
Carrier width	A	3.90 ± 0.10
Carrier length	B	5.60 ± 0.10
Carrier depth	C	1.60 ± 0.10
Sprocket hole	d	1.55 ± 0.05
Reel outside diameter	D	330 ± 1.0
Feed hole diameter	D0	13 ± 0.5
Reel inner diameter	D1	50 (min)
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	5.5 ± 0.10
Sprocket hole pitch	P	8.0 ± 0.10
Sprocket hole pitch	P0	4.0 ± 0.10
Embossment center	P1	2.0 ± 0.25
Overall tape thickness	T	0.25 ± 0.05
Tape width	W	12 ± 0.15
Reel width	W1	13.5 ± 1.0





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