

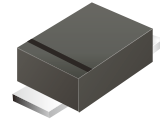
SS54BF-HF Thru. SS520BF-HF

Reverse Voltage: 40 to 200 Volts

Forward Current: 5.0 Amp

RoHS Device

Halogen Free

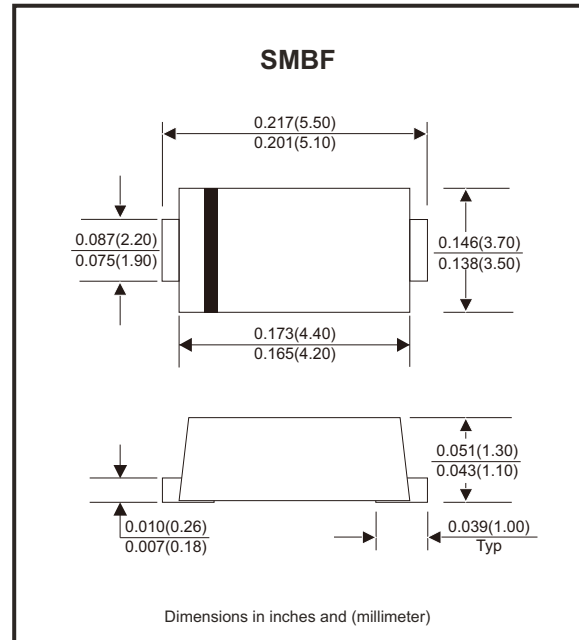


Features

- Metal silicon junction, majority carrier conduction.
- For surface mounted applications.
- Low power loss, high efficiency.
- High forward surge current capability.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

Mechanical data

- Case: SMBF
- Terminals: Solderable per MIL-STD-750, method 2026.



Circuit Diagram



Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20%

Parameter	Symbols	SS54BF-HF	SS56BF-HF	SS510BF-HF	SS515BF-HF	SS520BF-HF	Units
Maximum repetitive peak reverse voltage	V _{RRM}	40	60	100	150	200	V
Maximum RMS voltage	V _{RMS}	28	42	70	105	140	V
Maximum DC blocking voltage	V _{DC}	40	60	100	150	200	V
Maximum average forward rectified current	I _{F(AV)}	5					A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	120					A
Max instantaneous forward voltage at 5A	V _F	0.55	0.70	0.85			V
Maximum DC reverse current T _j = 25°C at rated DC reverse voltage T _j = 100°C	I _R	1.0 50					mA
Typical junction capacitance (Note 1)	C _j	800	500				pF
Typical thermal resistance (Note 2)	R _{θJA}	45					°C/W
Operating junction temperature range	T _j	-55 ~ +150					°C
Storage temperature range	T _{stg}	-55 ~ +150					°C

Notes: 1. Measured at 1 MHz and applied reverse voltage of 4 V D.C

2. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Company reserves the right to improve product design , functions and reliability without notice.

REV:A

Rating and Characteristic Curves (SS54BF-HF Thru. SS520BF-HF)

Fig.1 - Forward Current Derating Curve

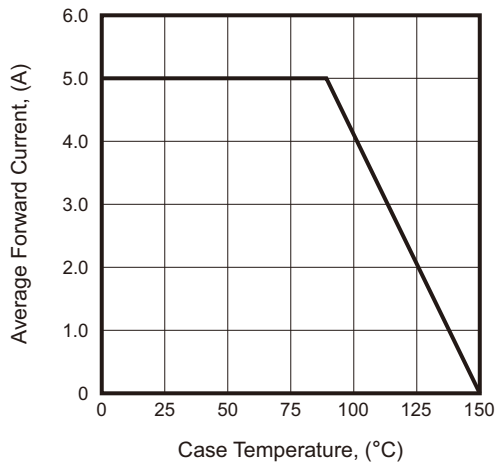


Fig.2 - Typical Reverse Characteristics

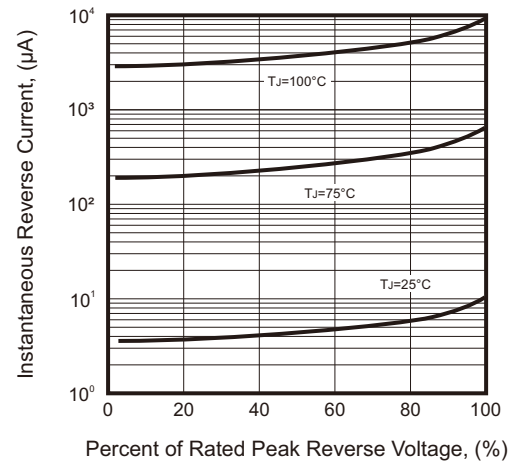


Fig.3 - Typical Forward Characteristic

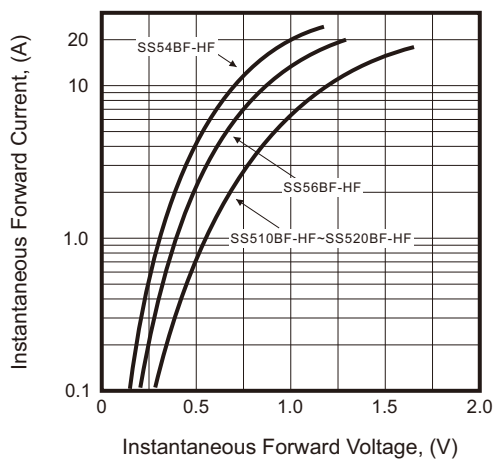


Fig.4 - Typical Junction Capacitance

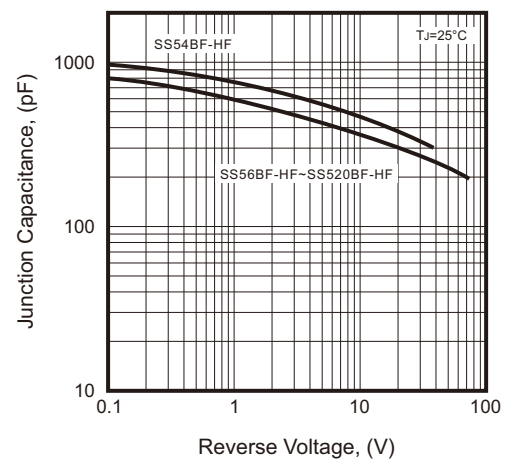


Fig.5 - Maximum Non-Repetitive Peak Forward Surge Current

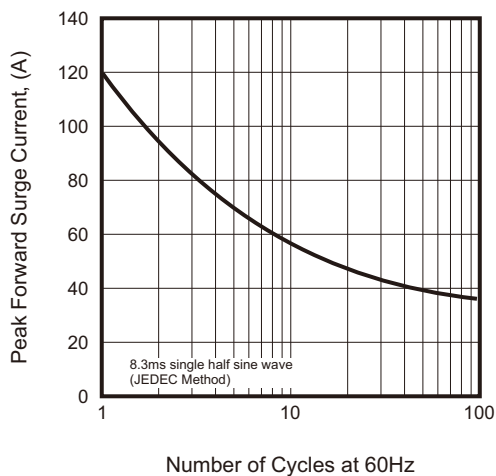
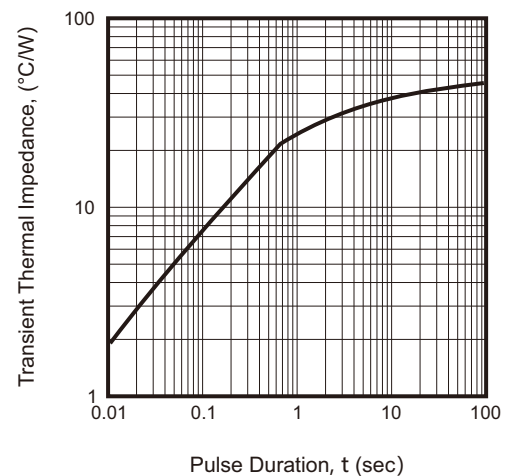
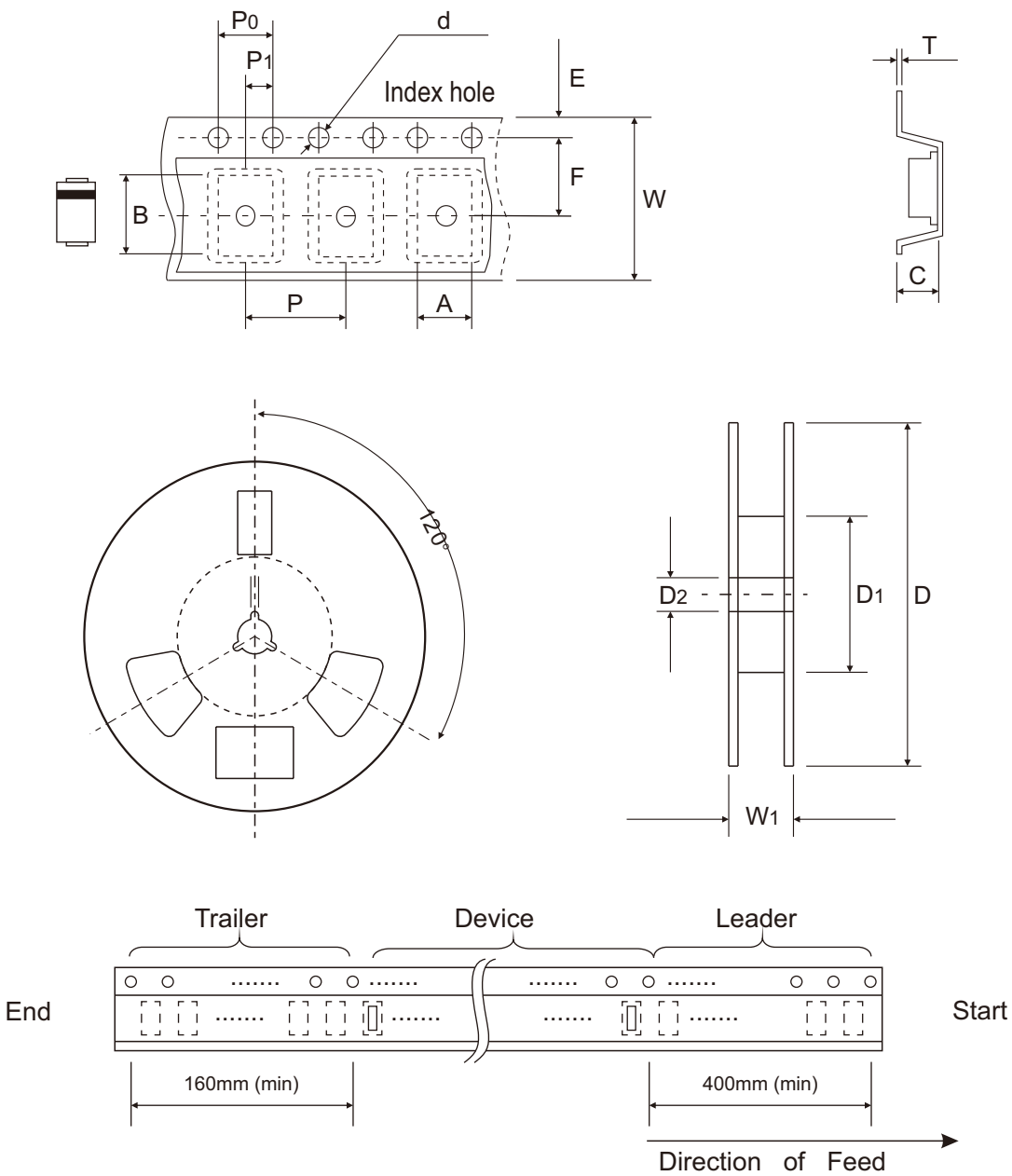


Fig.6 - Typical Transient Thermal Impedance



Reel Taping Specification

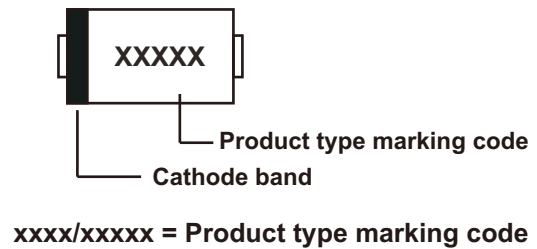


SMBF	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.80 ± 0.10	5.75 ± 0.10	1.40 ± 0.10	1.55 ± 0.05	330 ± 2.00	75 ± 1.00	13.00 ± 0.20
	(inch)	0.150 ± 0.004	0.226 ± 0.004	0.055 ± 0.004	0.061 ± 0.002	12.992 ± 0.079	2.953 ± 0.039	0.512 ± 0.008

SMBF	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.10	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.23 ± 0.02	12.00 ± 0.10	14.70 + 2.00 - 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.004	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.009 ± 0.001	0.472 ± 0.004	0.579 + 0.079 - 0.039

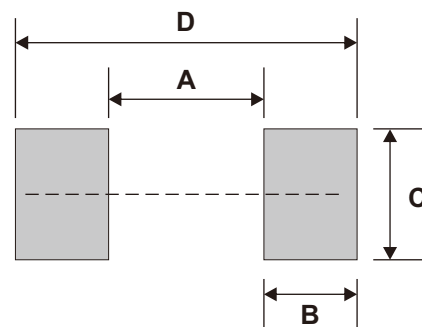
Marking Code

Part Number	Marking Code
SS54BF-HF	S54B
SS56BF-HF	S56B
SS510BF-HF	S510B
SS515BF-HF	S515B
SS520BF-HF	S520B



Suggested PAD Layout

SIZE	SMBF	
	(mm)	(inch)
A	3.00	0.118
B	1.80	0.071
C	2.54	0.100
D	6.60	0.260



Note: 1. The pad layout is for reference purpose only.

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SMBF	5,000	13

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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[SS515BF-HF](#) [SS54BF-HF](#) [SS510BF-HF](#) [SS56BF-HF](#) [SS520BF-HF](#)