

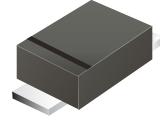
AS5DBF-HF Thru. AS5MBF-HF

Reverse Voltage: 200 to 1000 V

Forward Current: 5.0 A

RoHS Device

Halogen Free

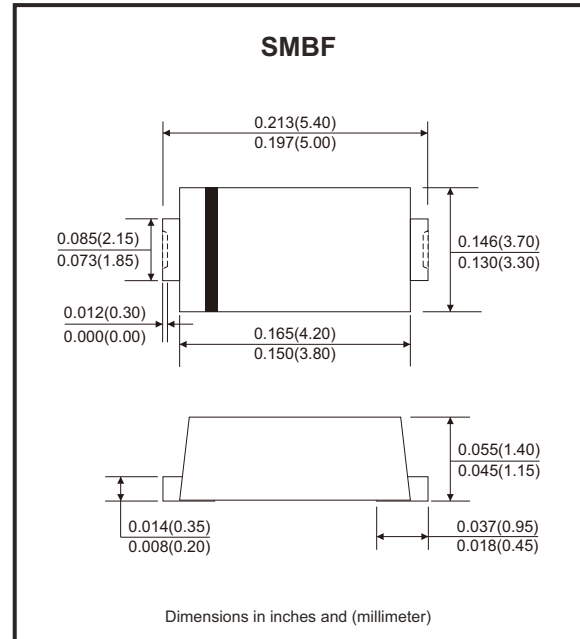


Features

- For surface mounted applications.
- Ideal for automated placement.
- Low forward voltage drop.
- High forward surge current capability.
- AEC-Q101 Qualified.

Mechanical data

- Case: SMBF, molded plastic.
- Molding compound: UL flammability classification rating 94V-0.
- Terminals: Solder plated, solderable per MIL-STD-202, method 208.
- Polarity: Color band denotes cathode end.



Circuit Diagram



Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	AS5DBF-HF	AS5GBF-HF	AS5JBF-HF	AS5KBF-HF	AS5MBF-HF	Unit
Peak repetitive reverse voltage	V_{RRM}	200	400	600	800	1000	V
RMS reverse voltage	V_{RMS}	140	280	420	560	700	V
DC blocking voltage	V_{DC}	200	400	600	800	1000	V
Max. average forward output current	$I_{F(AV)}$	5					A
Peak forward surge current, 8.3ms single half-sine-wave	I_{FSM}	150					A
Typical thermal resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	65 16 15					$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +150					$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150					$^\circ\text{C}$

Notes: 1. Device mounted on PCB with 10mm x 20mm x 0.1mm copper pad areas.

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Test conditions	Typ	Max	Unit
Maximum instantaneous forward voltage	V_F	$I_F = 5.0\text{A}$		1.15	V
Maximum reverse current	I_R	Rated V_R	@ $T_A=25^{\circ}\text{C}$	10	μA
			@ $T_A=125^{\circ}\text{C}$	250	

Rating and Characteristic Curves (AS5DBF-HF Thru. AS5MBF-HF)

Fig.1 - Forward Current Derating Curve

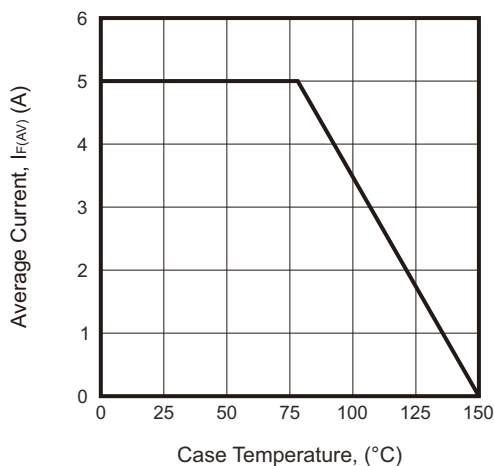


Fig.2 - Surge Current Derating Curve

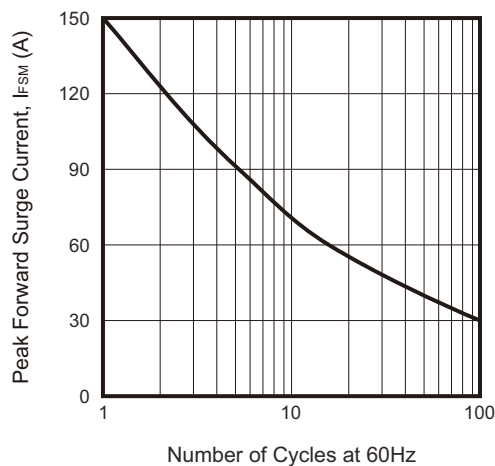


Fig.3 - Typical Forward Voltage Characteristics

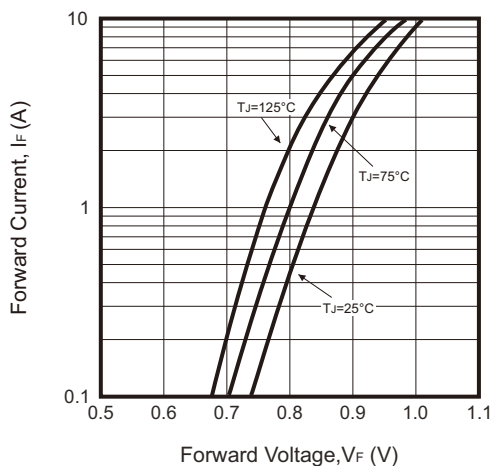
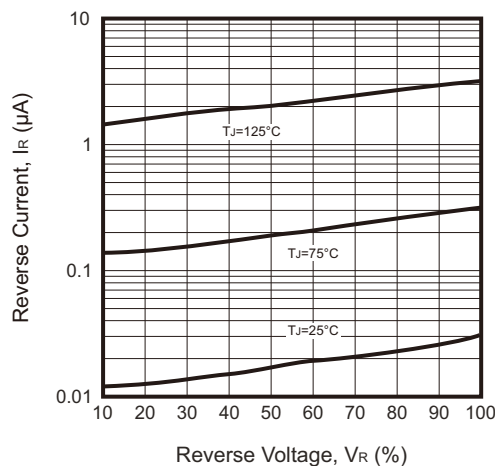
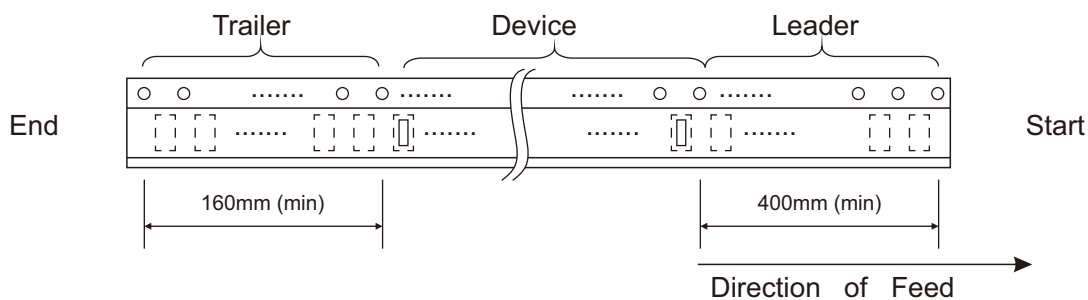
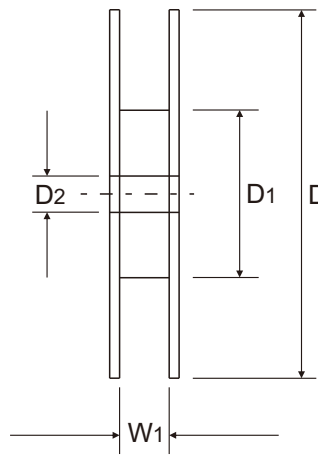
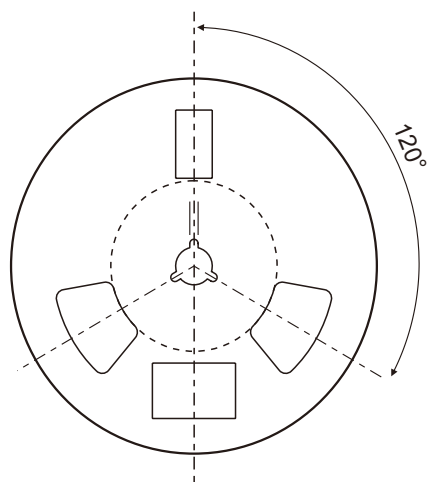
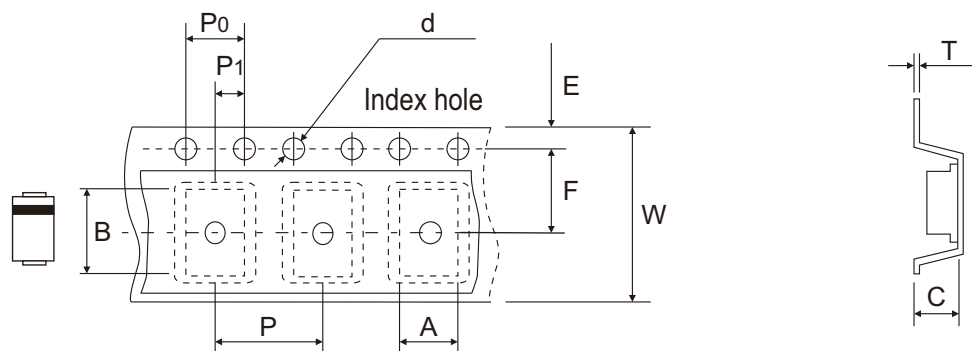


Fig.4 - Typical Reverse Characteristic



Reel Taping Specification

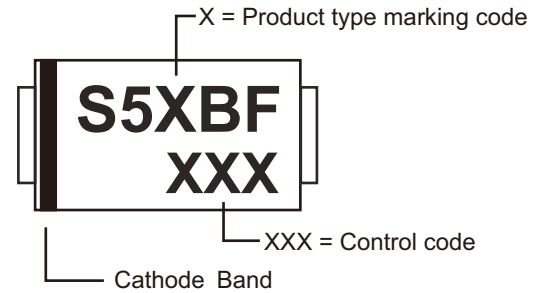


SMBF	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.70 ± 0.10	5.50 ± 0.10	1.50 ± 0.10	1.50 ± 0.10	330 ± 1.00	75 ± 1.00	13.50 ± 0.50
	(inch)	0.146 ± 0.004	0.217 ± 0.004	0.059 ± 0.004	0.059 ± 0.004	12.992 ± 0.039	2.953 ± 0.039	0.531 ± 0.020

SMBF	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.30 ± 0.05	12.00 ± 0.10	13.50 ± 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.012 ± 0.002	0.472 ± 0.004	0.531 ± 0.039

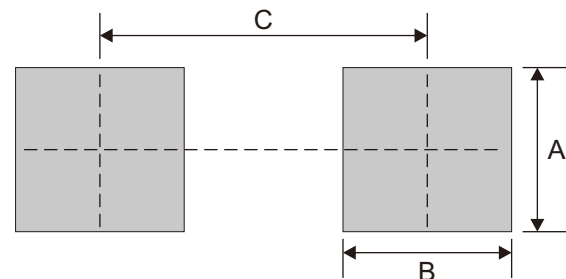
Marking Code

Part Number	Marking Code
AS5DBF-HF	S5DBF
AS5GBF-HF	S5GBF
AS5JBF-HF	S5JBF
AS5KBF-HF	S5KBF
AS5MBF-HF	S5MBF



Suggested P.C.B. PAD Layout

SIZE	SMBF	
	(mm)	(inch)
A	2.17	0.085
B	2.23	0.088
C	4.33	0.170



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SMBF	4,000	13