

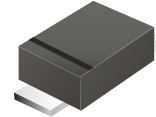
ASS56LAF-HF

Reverse Voltage: 60V

Forward Current: 5A

RoHS Device

Halogen Free

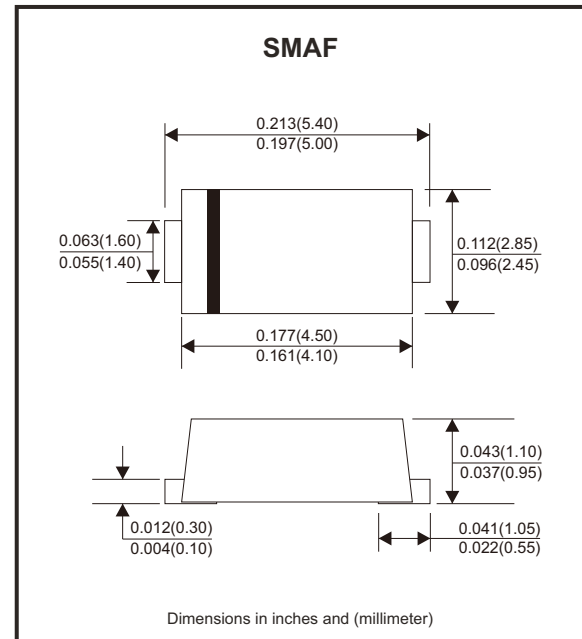


Features

- Metal silicon junction, majority carrier conduction.
- High forward surge current capability.
- Low forward voltage drop.
- High temperature soldering guaranteed:
260°C @ 10s.
- Robust guarding for over voltage protection.
- AEC-Q101 Qualified.

Mechanical data

- Case: SMAF, molded plastic.
- Terminals: Matte tin plated leads, solderable per
J-STD-002 and JESD22-B102.
- Polarity: Color band denotes cathode end.
- Mounting position: Any.



Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V_{RRM}	60	V
RMS reverse voltage	V_{RMS}	42	V
DC blocking voltage	V_{DC}	60	V
Average forward output current	I_o	5	A
Peak forward surge current, 8.3ms single half sine-wave	I_{FSM}	150	A
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Thermal Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit
Typical thermal resistance (Note 1)	$R_{\theta JA}$		78		°C/W
	$R_{\theta JC}$		18		
	$R_{\theta JL}$		20		

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

Electrical Characteristics (at TA=25°C, unless otherwise noted)

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Instantaneous forward voltage (Note 1)	IF = 5A, @TA = 25°C	VF			0.65	V
Reverse current (Note 2)	Rated VR, @TJ = 25°C @TJ = 100°C	IR			100	μA
					10	mA

Notes: 1. Pulse test: 300μs pulse width, 1% duty cycle.
2. Pulse test: pulse width 40ms.

Typical Rating and Characteristics Curves (ASS56LAF-HF)

Fig.1 - Forward Current Derating Curve

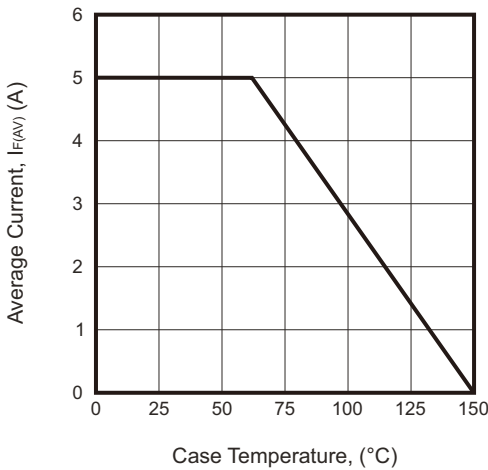


Fig.2 - Surge Current Derating Curve

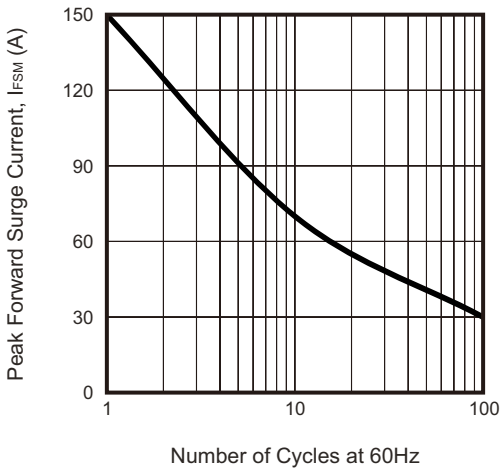


Fig.3 - Typical Forward Voltage Characteristics

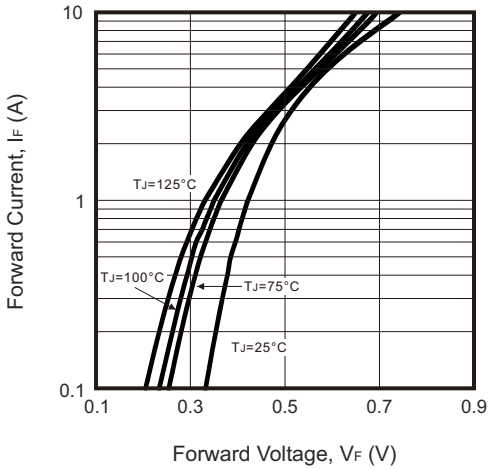
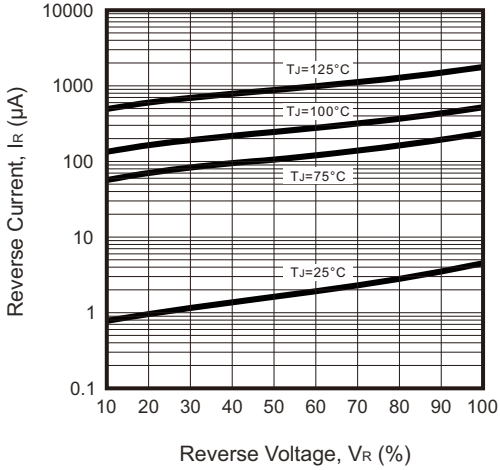
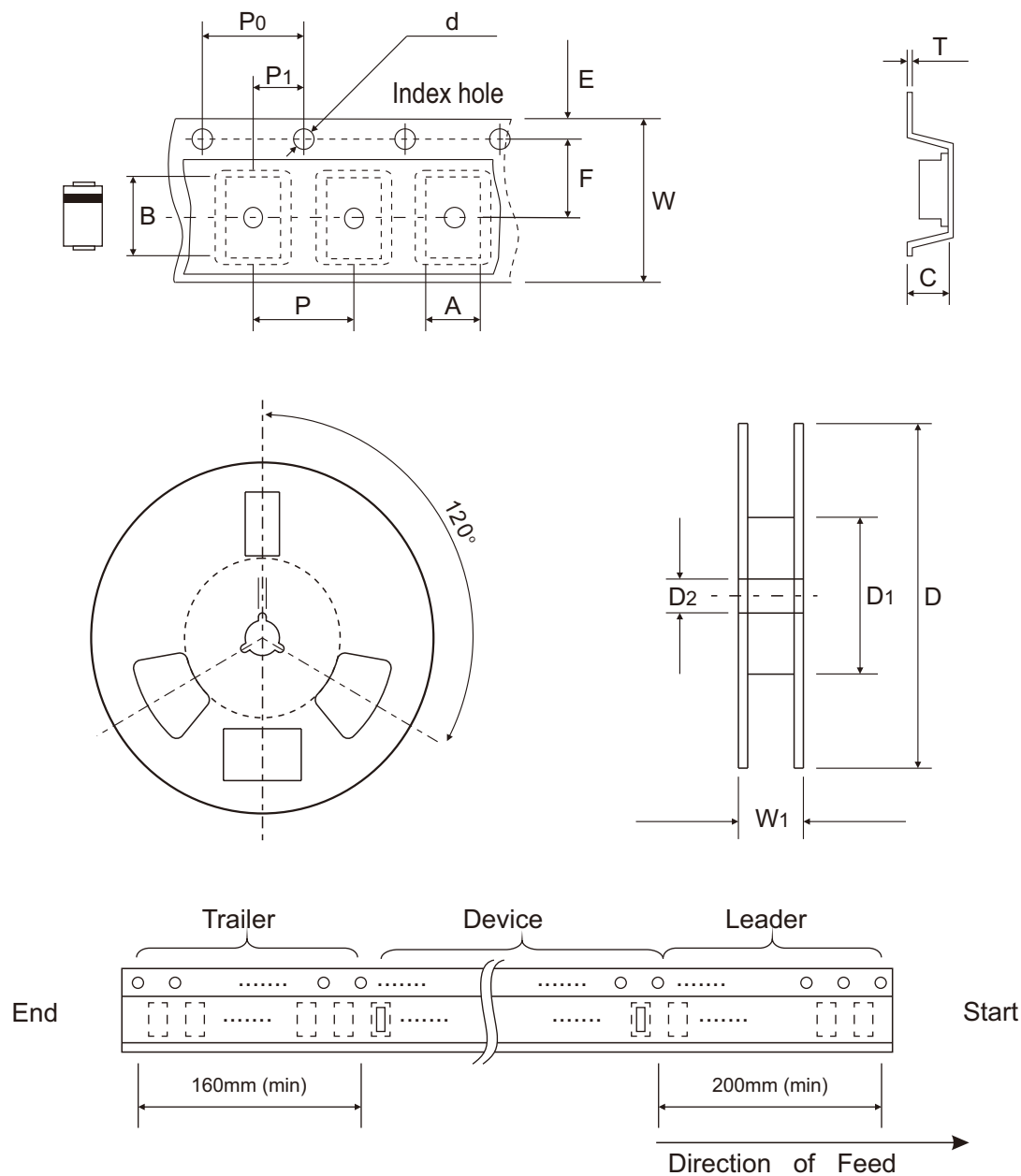


Fig.4 - Typical Reverse Characteristics



Reel Taping Specification

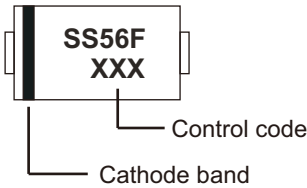


SMAF	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.93 ± 0.10	5.45 ± 0.10	1.10 ± 0.10	1.55 ± 0.10	330.00 ± 1.00	75.00 ± 1.00	13.50 ± 0.50
	(inch)	0.115 ± 0.004	0.215 ± 0.004	0.043 ± 0.004	0.061 ± 0.004	12.992 ± 0.039	2.953 ± 0.039	0.531 ± 0.020

SMAF	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.23 ± 0.05	12.00 ± 0.10	18.10 ± 0.50
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.002	0.472 ± 0.004	0.713 ± 0.020

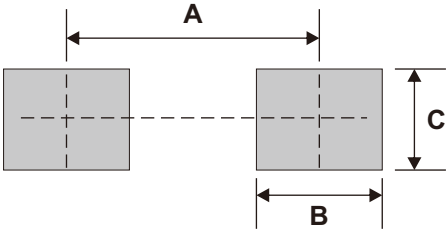
Marking Code

Part Number	Marking Code
ASS56LAF-HF	SS56F



Suggested P.C.B. PAD Layout

SIZE	SMAF	
	(mm)	(inch)
A	4.18	0.165
B	2.08	0.082
C	1.67	0.066



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SMAF	10,000	13