

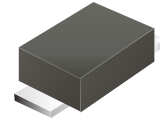
ASMF4L16CA-HF

Working Peak Reverse Voltage: 16 V

Peak Pulse Power: 400 W

RoHS Device

Halogen Free

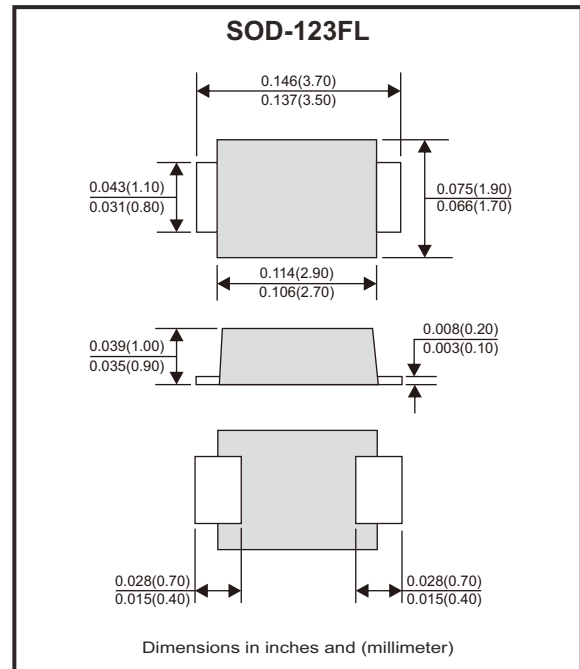


Features

- Glass passivated chip.
- 400W peak pulse power capability with a 10/1000 μ s waveform, repetition rate (duty cycles): 0.01%.
- Low leakage.
- Excellent clamping capability.
- Very fast response time.
- ESD protection of data lines in accordance with IEC 61000-4-2.
- IEC 61000-4-2 ESD 15kV (air), 8kV (contact).
- High temperature soldering: 260°C/40 seconds at terminals.
- AEC-Q101 Qualified.

Mechanical data

- Case: JEDEC SOD-123FL, molded plastic over glass passivated junction.
- Epoxy: UL 94V-0 rate flame retardant.
- Polarity: Color band denotes cathode end except bipolar.
- Terminal: Solderable per MIL-STD-750, method 2026.
- Mounting position: Any.



Circuit Diagram



Bi-directional

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

Characteristics	Symbol	Value	Units
Peak power dissipation with a 10/1000 μ s waveform (Note 1)	P _{PP}	400	W
Peak pulse current with a 10/1000 μ s waveform (Note 1)	I _{PP}	See next table	A
Power dissipation on infinite heatsink at T _L = 50°C	P _D	1.0	W
Peak forward surge current, 8.3 ms single half sine-wave unidirectional only (Note 2)	I _{FSM}	30	A
Max. instantaneous forward voltage at 25A for unidirectional only	V _F	3.5	V
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

Notes: 1. Non-repetitive current pulse, per Fig.5 and derated above T_a=25°C per Fig.1 .

2. Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

SMD Transient Voltage Suppressor

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

Part No	Breakdown voltage $V_{BR} @ I_T$			Maximum reverse leakage @ V_{RWM} I_R (μA)	Working peak reverse voltage V_{RWM} (V)	Maximum reverse surge current I_{PP} (A)	Maximum clamping voltage @ I_{PP} V_C (V)	Marking code
	Min(V)	Max(V)	I_T (mA)					Bi
ASMF4L16CA-HF	17.8	19.7	1	1	16	15.4	26.0	BP

- Notes: 1. Suffix A denotes 5% tolerance device.
2. For Bi-directional devices, use suffix CA.

Rating and Characteristic Curves (ASMF4L16CA-HF)

Fig.1 - Pulse Derating Curve

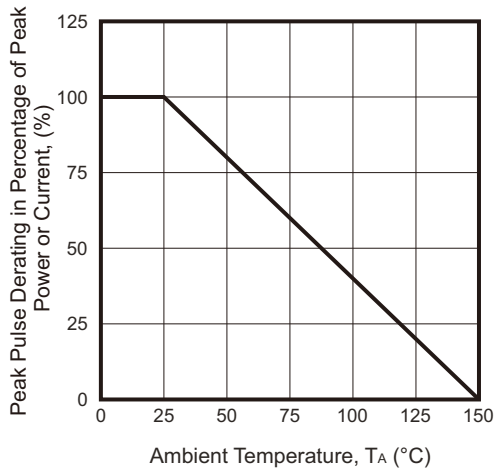


Fig.2 - Max. Non-repetitive Surge Current

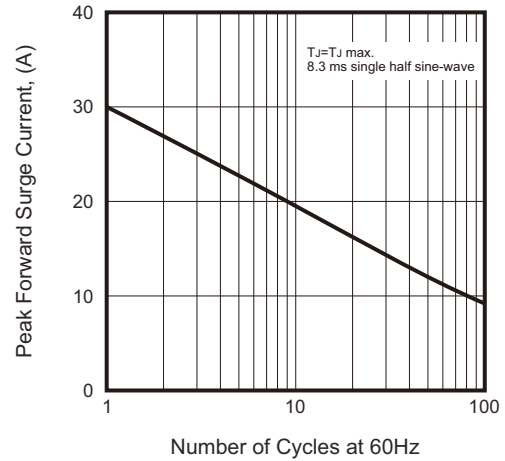


Fig.3 - Typical Junction Capacitance

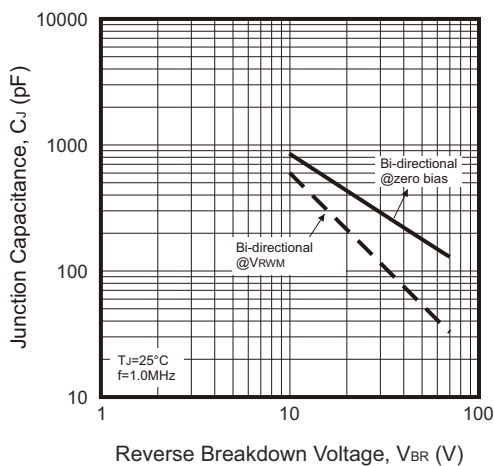


Fig.4 - Peak Pulse Power Rating Curve

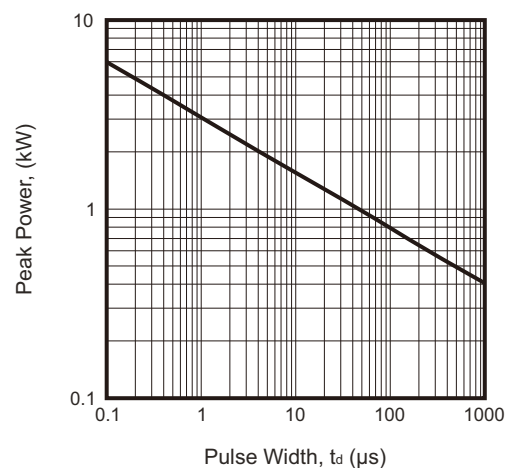
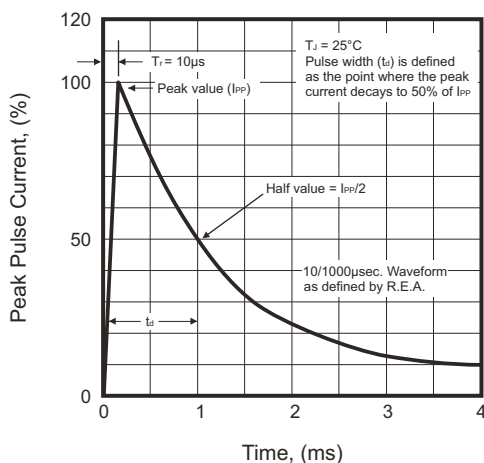
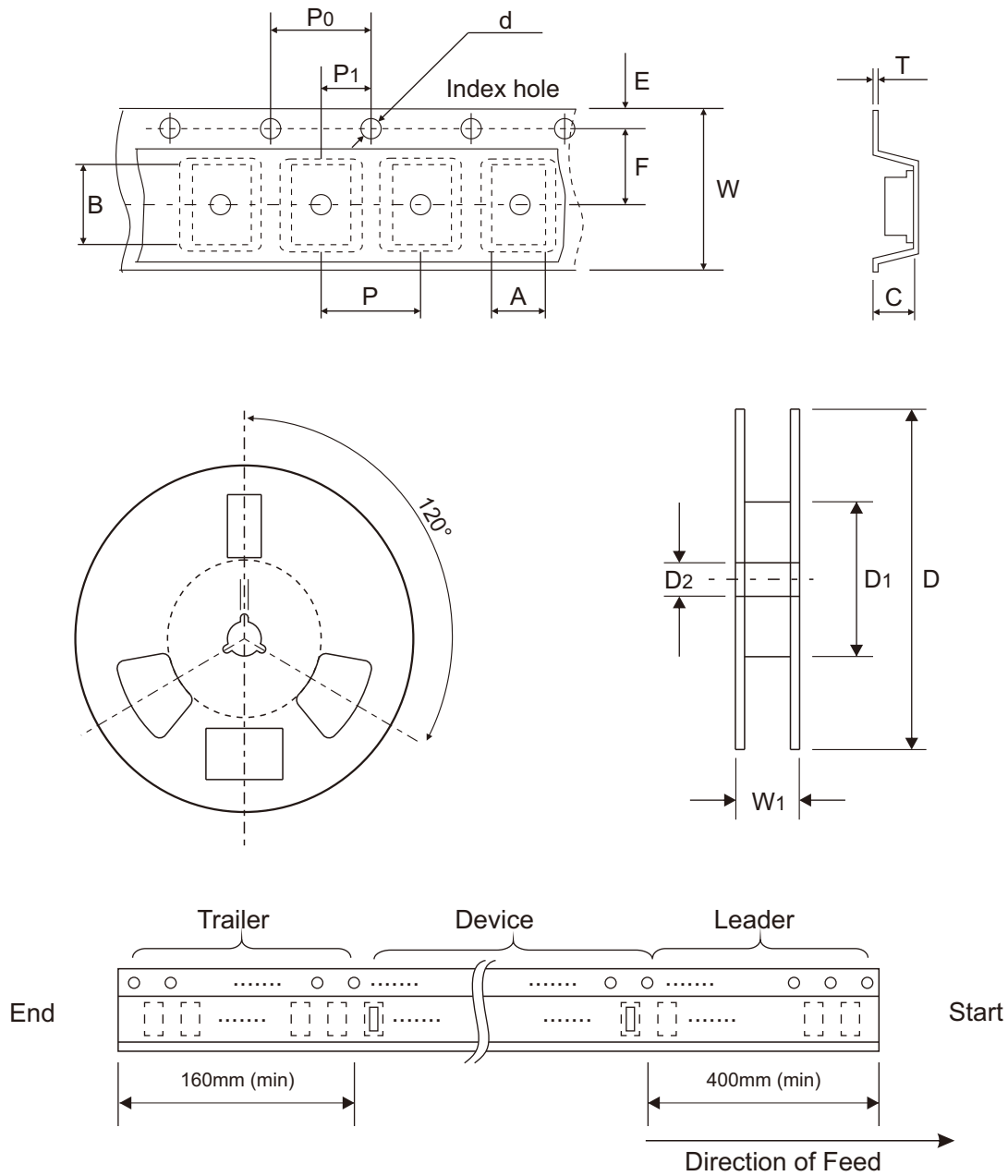


Fig.5 - Pulse Waveform



Reel Taping Specification



SOD-123FL	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.05 ± 0.10	3.85 ± 0.10	1.25 ± 0.10	1.55 ± 0.05	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.50
	(inch)	0.081 ± 0.004	0.152 ± 0.004	0.049 ± 0.004	0.061 ± 0.002	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.020

SOD-123FL	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.05	8.00 ± 0.30	12.00 ± 0.50
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.002	0.315 ± 0.012	0.472 ± 0.020

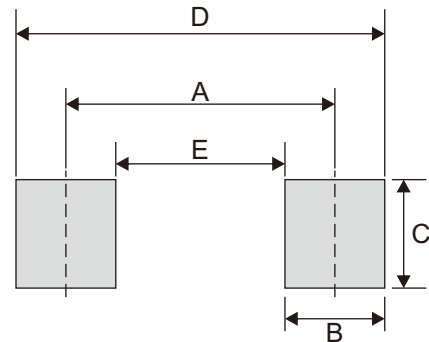
Marking Code

Part Number	Marking Code
ASMF4L16CA-HF	BP



Suggested P.C.B. PAD Layout

SIZE	SOD-123FL	
	(mm)	(inch)
A	3.10	0.122
B	1.15	0.045
C	1.25	0.048
D	4.25	0.167
E	1.95	0.077



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-123FL	3,000	7