

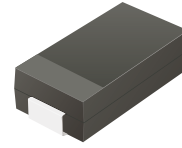
AS1M-001-HF

Reverse Voltage: 1000 V

Forward Current: 1.0 A

RoHS Device

Halogen Free



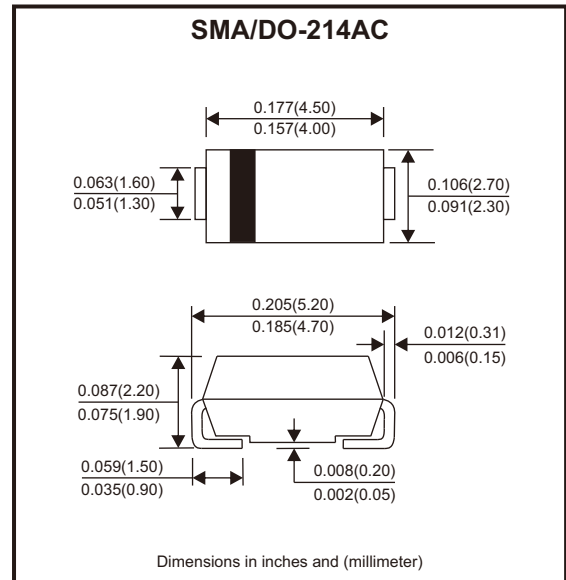
Features

- For surface mounted applications.
- Low profile package.
- Glass passivated chip junction.
- AEC-Q101 Qualified.

Mechanical data

- Case: SMA/DO-241AC, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.

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	AS1M-001-HF	Units
Maximum repetitive peak reverse voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC blocking voltage	V_{DC}	1000	V
Maximum average forward rectified current	I_o	1	A
Peak forward surge current 8.3ms single half sine wave superimposed on rated load	I_{FSM}	30	A
Maximum instantancous forward voltage at 1A	V_F	1.1	V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^{\circ}C$ $T_A=125^{\circ}C$	I_R	5 50	μA
Typical junction capacitance (Note 1)	C_J	8	pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$	90 20	$^{\circ}C/W$
Operating and storage temperature range	T_J, T_{STG}	-55 to +150	$^{\circ}C$

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

2. P.C.B. mounted with 0.2" x 0.2" (5 x 5mm) copper pad areas.

Typical Rating and Characteristic Curves (AS1M-001-HF)

Fig.1 - Forward Current Derating Curve

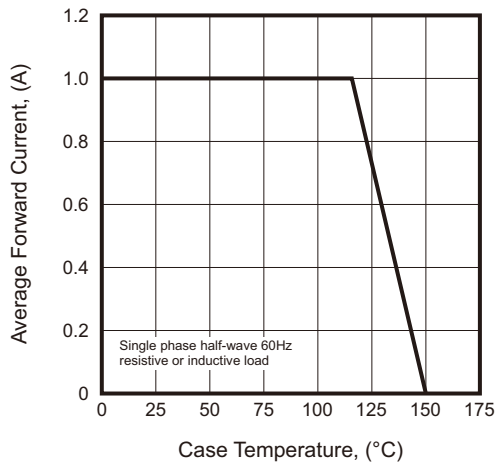


Fig.2 - Typical Reverse Characteristics

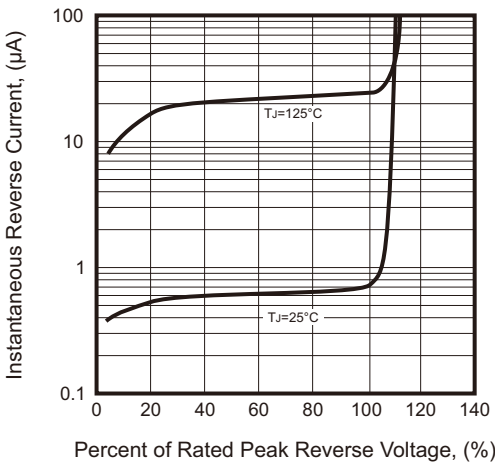


Fig.3 - Typical Forward Characteristic

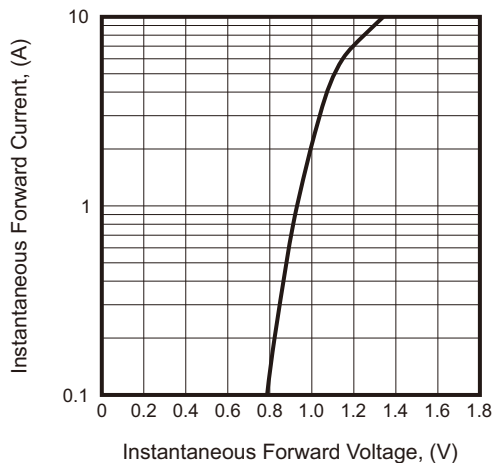


Fig.4 - Typical Junction Capacitance

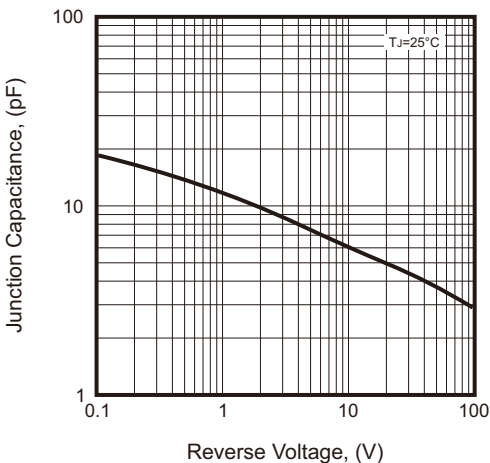
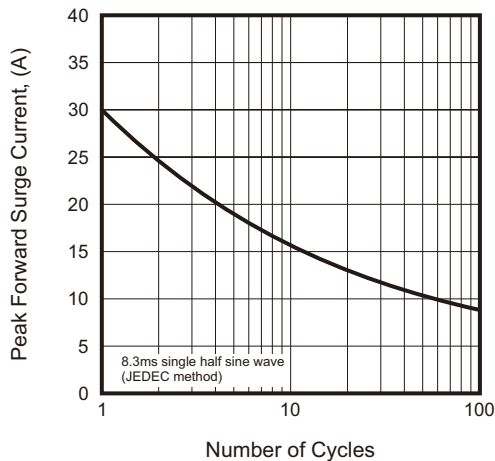
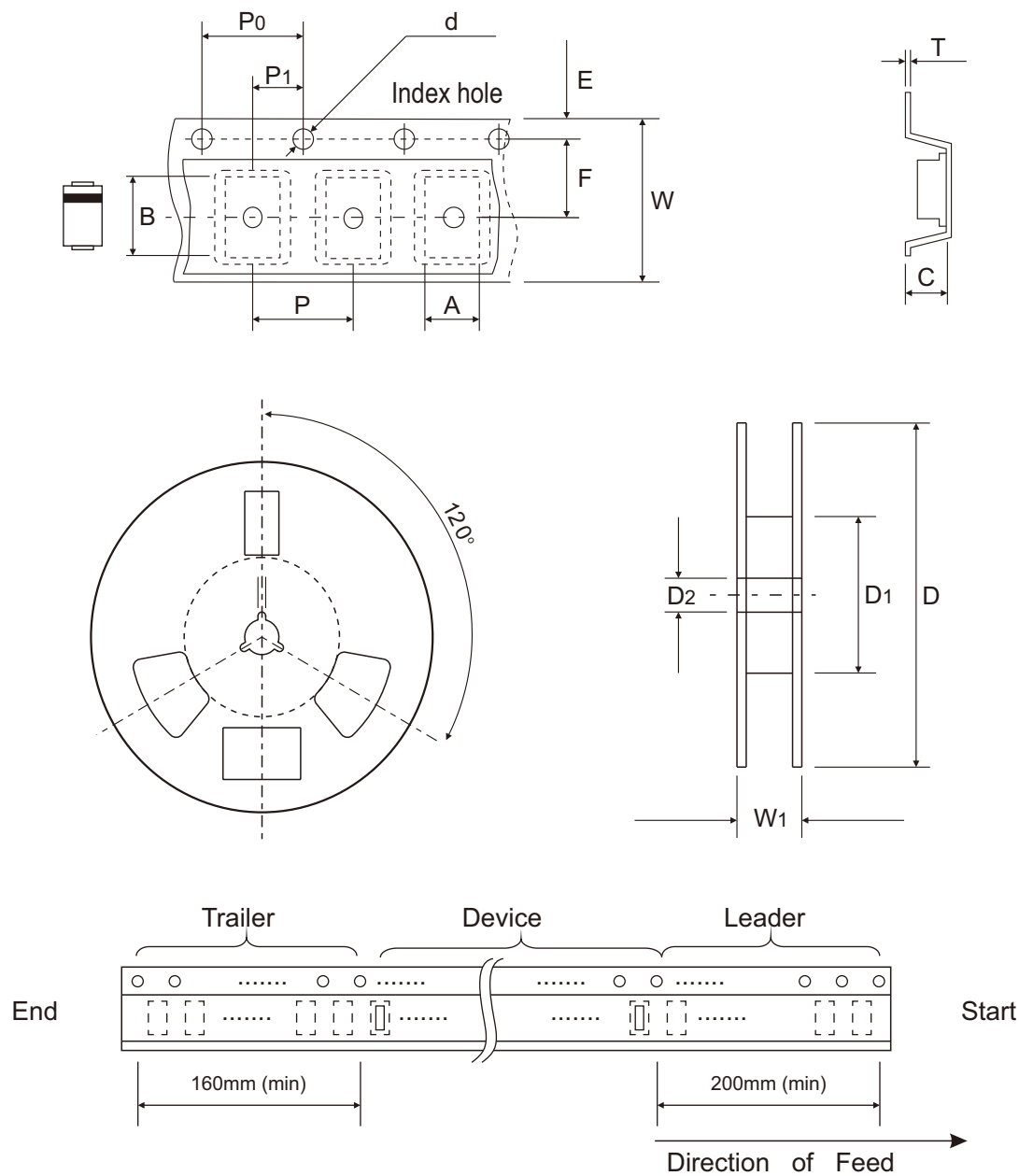


Fig.5 - Maximum Non-Repetitive Peak Forward Surge Current



Reel Taping Specification



DO-214AC (SMA)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.70 ± 0.10	5.33 ± 0.10	2.35 ± 0.10	1.55 ± 0.05	330.00 ± 2.00	75.00 ± 1.00	13.00 ± 0.20
	(inch)	0.106 ± 0.004	0.210 ± 0.004	0.093 ± 0.004	0.061 ± 0.002	12.992 ± 0.079	2.953 ± 0.039	0.512 ± 0.008

DO-214AC (SMA)	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	0.20 ± 0.03	12.00 ± 0.30	14.70 + 2.00 - 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.008 ± 0.001	0.472 ± 0.012	0.579 + 0.079 - 0.039

Marking Code

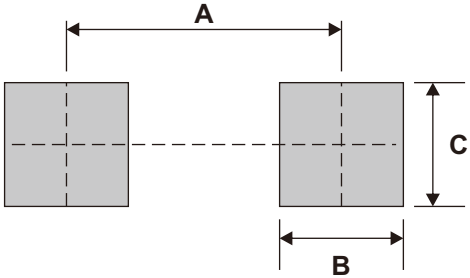
Part Number	Marking Code
AS1M-001-HF	S1M



 = Cathode band

Suggested P.C.B. PAD Layout

SIZE	DO-214AC (SMA)	
	(mm)	(inch)
A	4.20	0.165
B	1.80	0.071
C	1.80	0.071



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-214AC (SMA)	5,000	13