

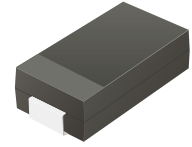
## AS1D-HF Thru. AS1M-HF

Reverse Voltage: 200 to 1000 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

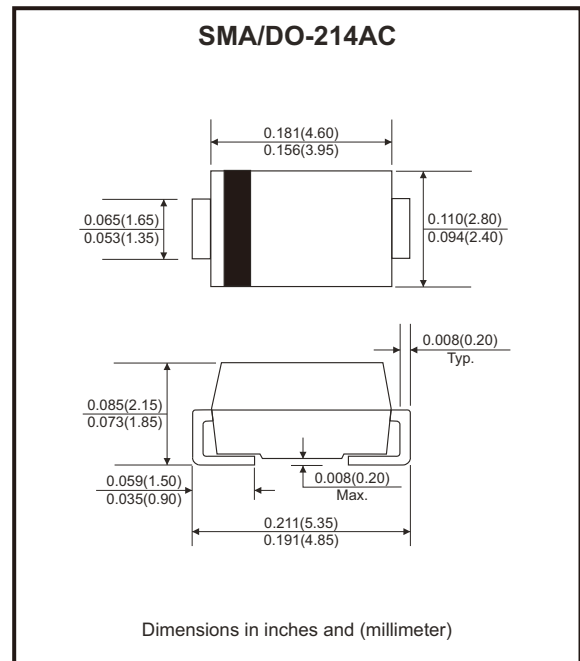


### Features

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

### Mechanical data

- Case: SMA/DO-214AC, molded plastic.
- Epoxy: UL 94V-0 rate flame retardant.
- Terminals: 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	AS1D-HF	AS1G-HF	AS1J-HF	AS1K-HF	AS1M-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	$I_{F(AV)}$	1					A
Peak forward surge current, 8.3ms single half-sine-wave @ $T_J=25^{\circ}\text{C}$	$I_{FSM}$	30					A
Typical thermal resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	70 25 30					$^{\circ}\text{C/W}$
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<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Test conditions	Typ	Max	Unit
Maximum instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> = 1.0A		1.1	V
Maximum reverse current	I <sub>R</sub>	Rated V <sub>R</sub>	@T <sub>A</sub> =25°C	5	μA
			@T <sub>A</sub> =125°C	50	

## Rating and Characteristic Curves (AS1D-HF Thru. AS1M-HF)

Fig.1 - Forward Current Derating Curve

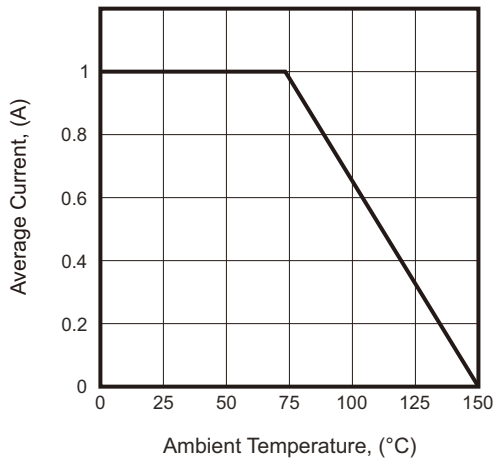


Fig.2 - Surge Current Derating Curve

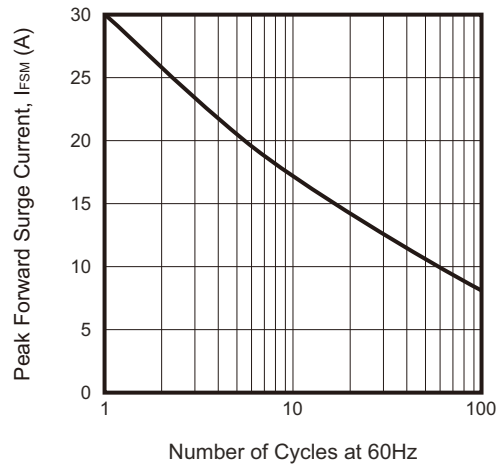


Fig.3 - Typical Forward Characteristics

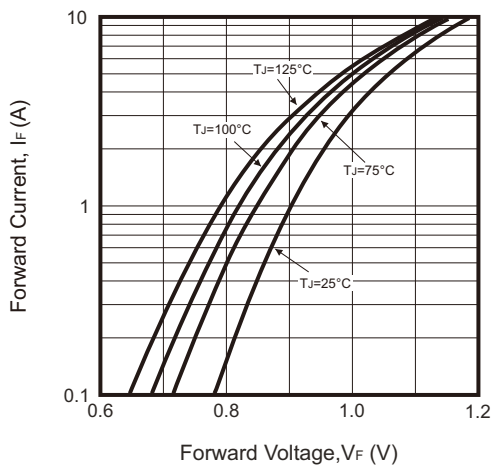
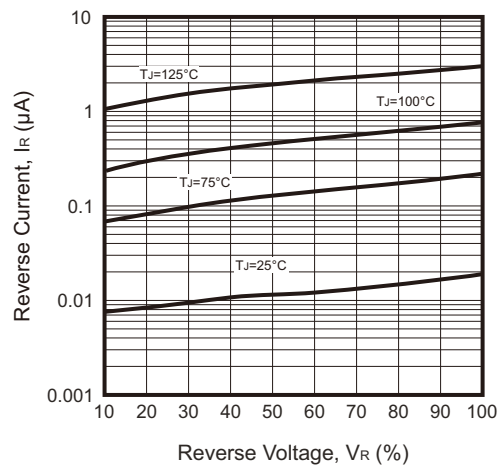
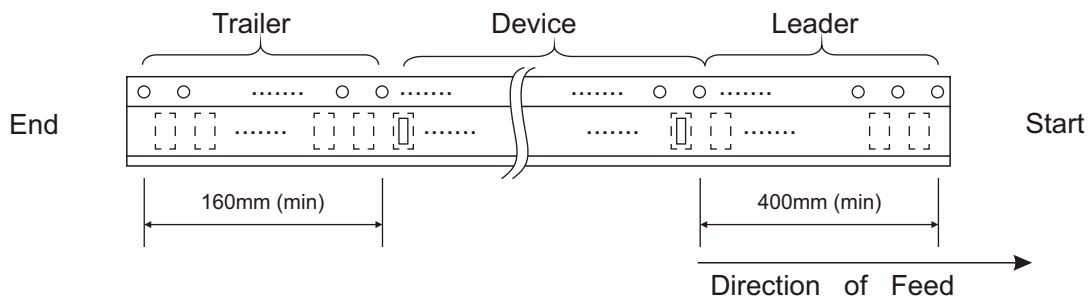
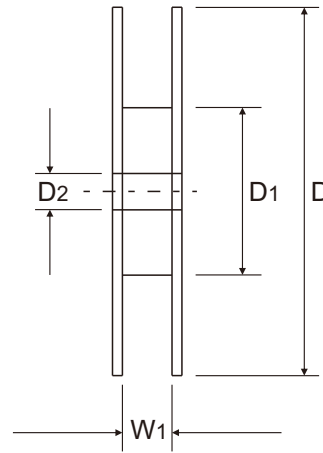
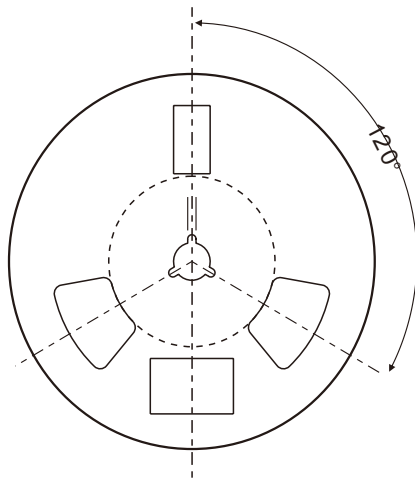
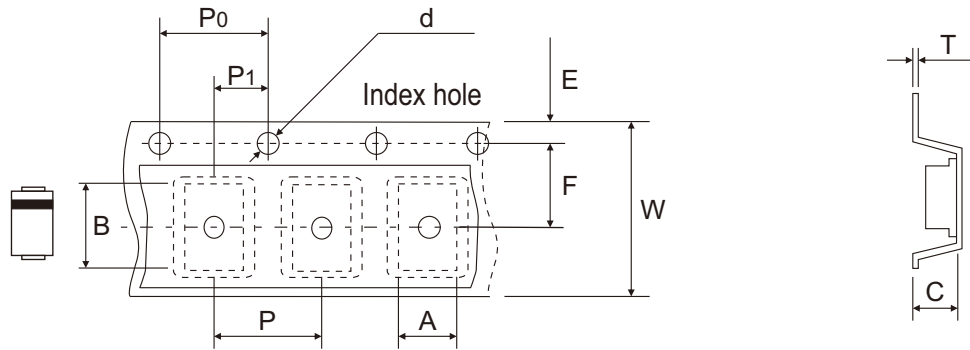


Fig.4 - Typical Reverse Characteristic



## Reel Taping Specification



DO-214AC (SMA)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.72 ± 0.10	5.27 ± 0.10	2.27 ± 0.10	1.55 ± 0.10	330 ± 1.00	75.00 ± 1.00	13.50 ± 0.50
	(inch)	0.107 ± 0.004	0.207 ± 0.004	0.089 ± 0.004	0.061 ± 0.004	12.992 ± 0.039	2.953 ± 0.039	0.531 ± 0.020

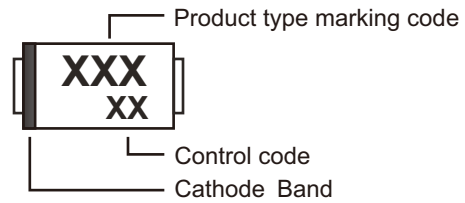
DO-214AC (SMA)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.25 ± 0.05	12.00 ± 0.10	13.50 ± 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.010 ± 0.002	0.472 ± 0.004	0.531 ± 0.039

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

REV:A

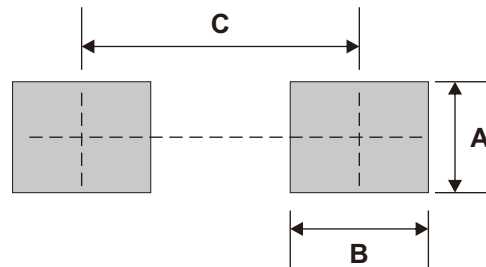
## Marking Code

Part Number	Marking Code
AS1D-HF	S1D
AS1G-HF	S1G
AS1J-HF	S1J
ASJK-HF	S1K
AS1M-HF	S1M



## Suggested PAD Layout

SIZE	DO-214AC (SMA)	
	(mm)	(inch)
A	1.67	0.066
B	2.08	0.082
C	4.18	0.165



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

## Standard Packaging

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

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