

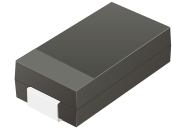
## AUS1J-HF Thru. AUS1M-HF

Reverse Voltage: 600 to 1000 V

Forward Current: 1.0 A

RoHS Device

Halogen Free



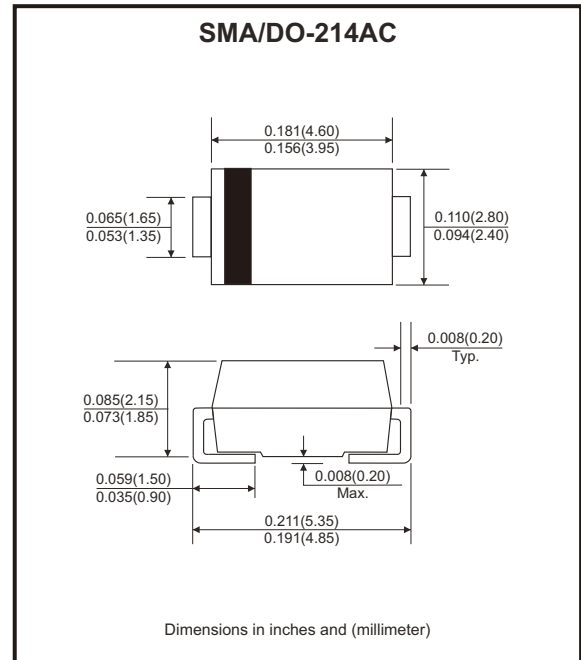
### Features

- Low forward voltage drop.
- High forward surge current capability.
- Low-profile SMD ideal for automated manufacturing.
- AEC-Q101 Qualified.

### Mechanical data

- Case: SMA/DO-214AC, molded plastic.
- Epoxy: UL flammability classification rating 94V-0.
- Terminals: Solder plated, solderable per MIL-STD-202, method 208.
- Polarity: Color band denoted cathode end.

### 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	AUS1J-HF	AUS1K-HF	AUS1M-HF	Units
Max. peak repetitive reverse voltage	$V_{RRM}$	600	800	1000	V
Max. RMS reverse voltage	$V_{RMS}$	420	560	700	V
Max. DC blocking voltage	$V_{DC}$	600	800	1000	V
Max. average forward output current	$I_{F(AV)}$	1			A
Peak forward surge current, 8.3ms single half sine wave	$I_{FSM}$	30			A
Max. instantaneous forward voltage @ $I_F=1A$	$V_F$	1.7			V
Max. reverse current Rated $V_R$	$I_R$	@ $T_A=25^\circ C$	5		$\mu A$
		@ $T_A=125^\circ C$	100		
Max. reverse recovery time $I_F=0.5A, I_{RM}=1A, I_{R(REC)}=0.25A$	$t_{rr}$	75			ns
Typical thermal resistance (Note 1)	$R_{\theta JA}$	70			$^\circ C/W$
	$R_{\theta JC}$	25			
	$R_{\theta JL}$	30			
Operating junction temperature range	$T_J$	-55 to +150			$^\circ C$
Storage temperature range	$T_{STG}$	-55 to +150			$^\circ C$

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

## Rating and Characteristic Curves (AUS1J-HF Thru. AUS1M-HF)

Fig.1 - Forward Current Derating Curve

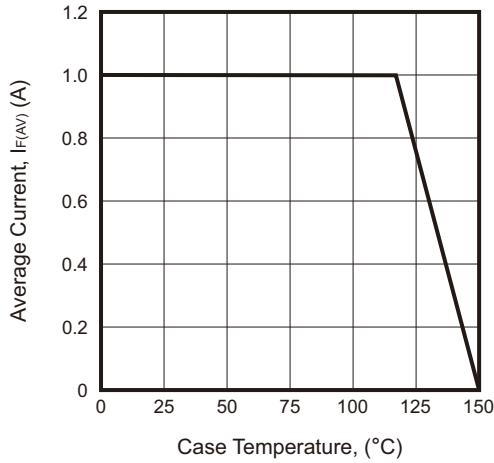


Fig.2 - Surge Current Derating Curve

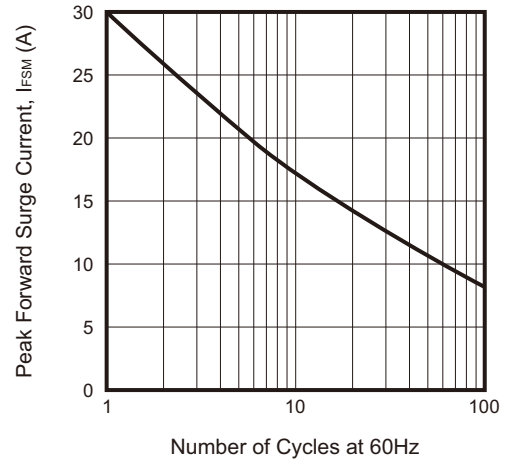


Fig.3 - Typical Forward Voltage Characteristic

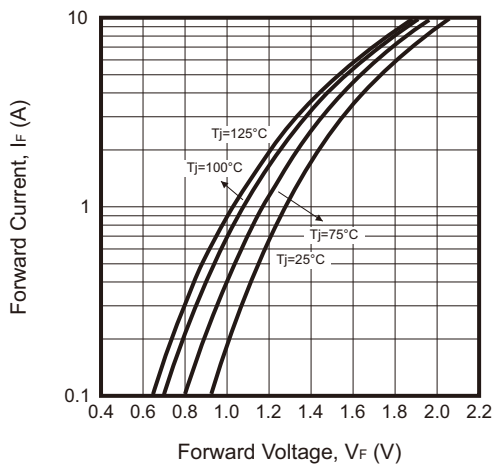
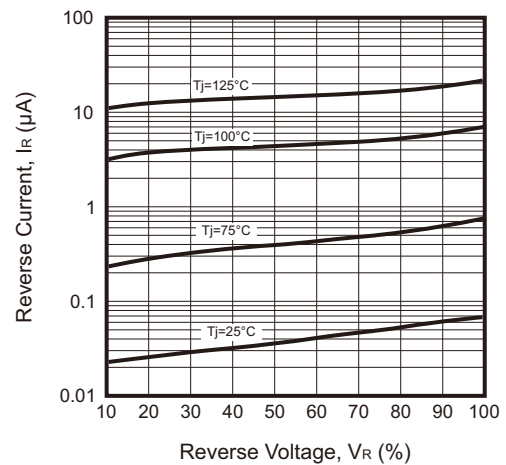
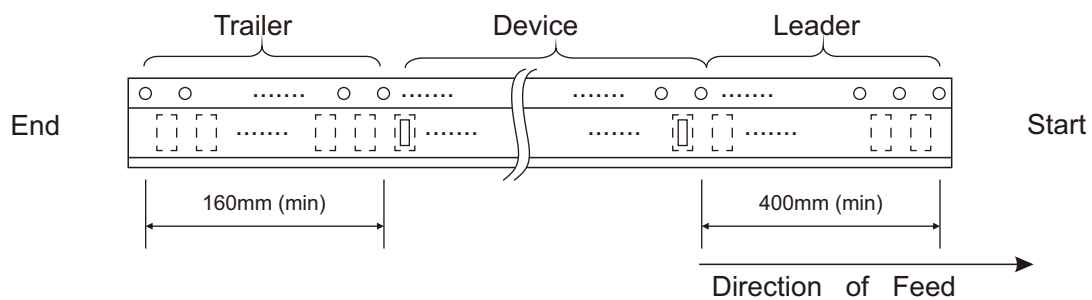
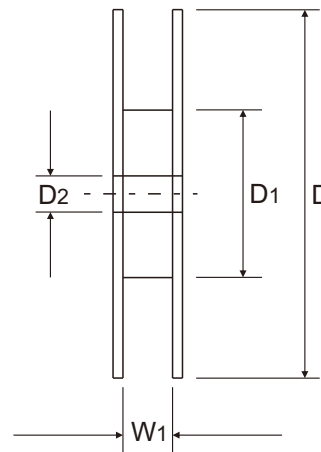
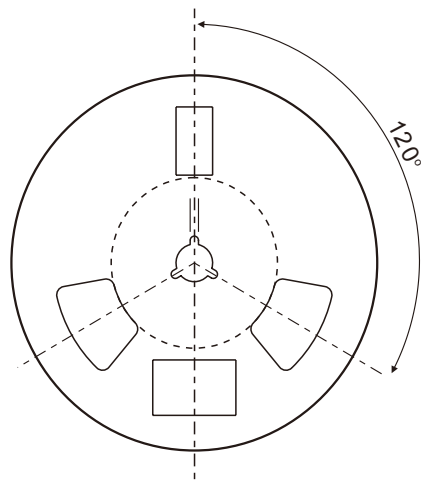
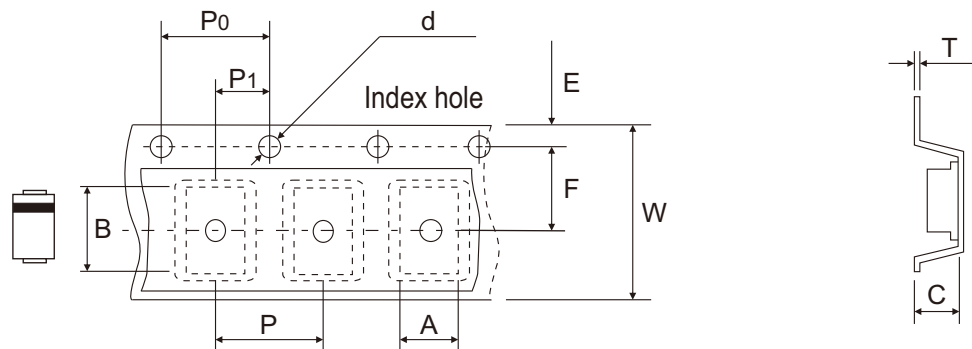


Fig.4 - Typical Reverse Characteristic



## Reel Taping Specification

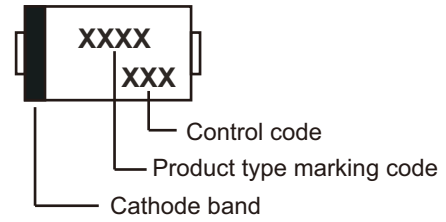


DO-214AC (SMA)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.79 ± 0.10	5.33 ± 0.10	2.36 ± 0.10	1.55 ± 0.10	330 ± 1.00	75.00 ± 1.00	13.50 ± 0.50
	(inch)	0.110 ± 0.004	0.210 ± 0.004	0.093 ± 0.004	0.061 ± 0.004	12.992 ± 0.039	2.953 ± 0.039	0.531 ± 0.020

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

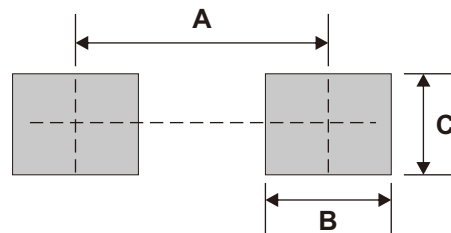
## Marking Code

Part Number	Marking Code
AUS1J-HF	US1J
AUS1K-HF	US1K
AUS1M-HF	US1M



## Suggested P.C.B. PAD Layout

SIZE	SMA	
	(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)
DO-214AC (SMA)	5,000	13