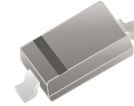


A1N4148WS-HF

RoHS Device
Halogen Free



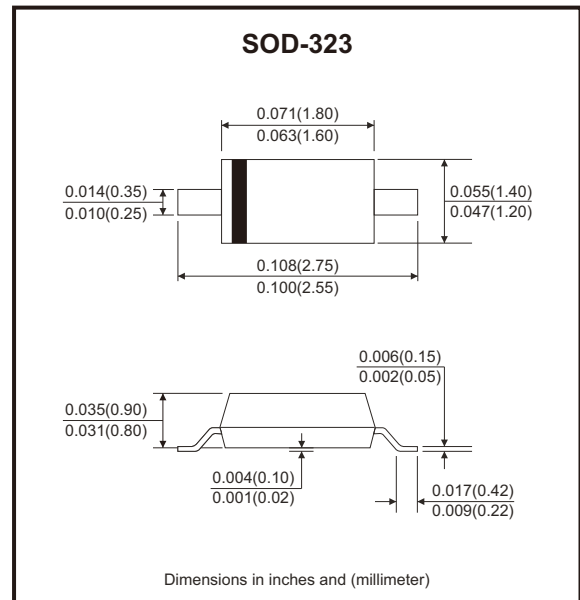
Features

- Fast switching speed: $t_{rr} = 4\text{ns}$.
- Surface mount package ideally suited for automatic insertion.
- For general purpose switching applications.
- High conductance.
- AEC-Q101 Qualified.

Mechanical data

- Case: Molded plastic, SOD-323

Circuit Diagram



Maximum Rating (at $T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	V_{RM}	100	V
Peak repetitive reverse voltage	V_{RRM}	75	V
Working peak reverse voltage	V_{RMM}		
DC reverse voltage	V_R		
RMS reverse voltage	$V_{R(RMS)}$	53	V
Average rectified output current	I_o	200	mA
Non-repetitive peak forward surge current	I_{FSM}	@ $t=1\mu\text{s}$ 2.0	A
		@ $t=1\text{s}$ 1.0	
Power dissipation	P_D	200	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Operating and storage temperature range	T_J, T_{STG}	-65 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)R}$	$I_R = 1.0\mu A$	75		V
Forward voltage	V_F	$I_F = 1mA$ $I_F = 10mA$ $I_F = 50mA$ $I_F = 150mA$		0.715 0.855 1.0 1.25	V
Reverse current	I_R	$V_R = 75V$ $V_R = 20V$		1.0 25	μA nA
Junction capacitance	C_J	$V_R = 0V, f = 1MHz$		2.0	pF
Reverse recovery time	t_{rr}	$I_F = I_R = 10mA, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$		4.0	nS

Rating and Characteristic Curves (A1N4148WS-HF)

Fig.1 - Forward Characteristics

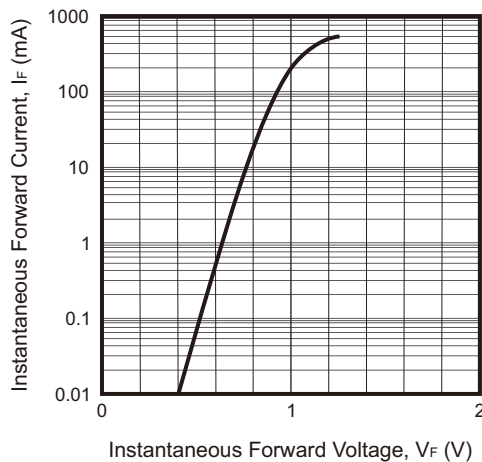
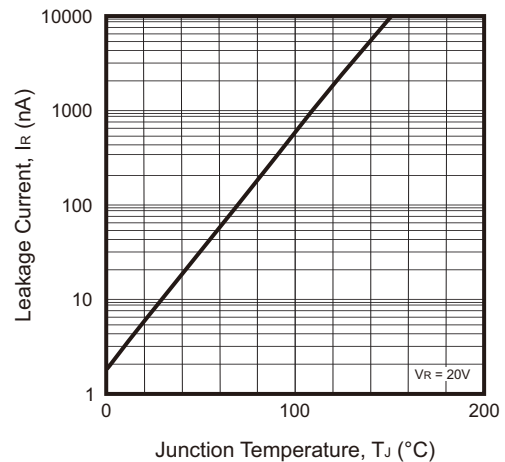
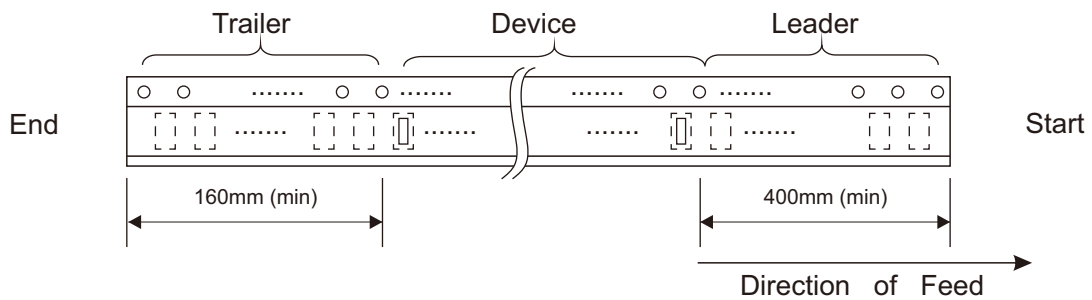
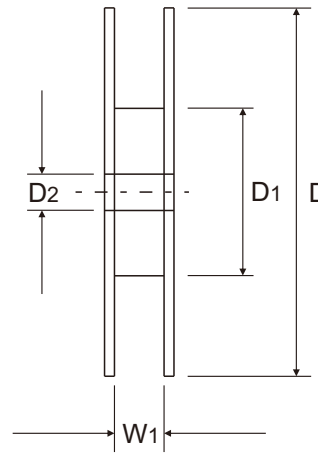
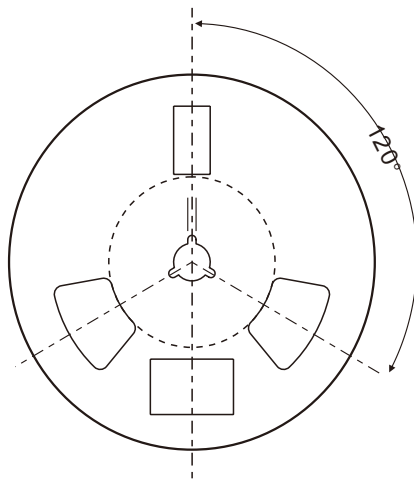
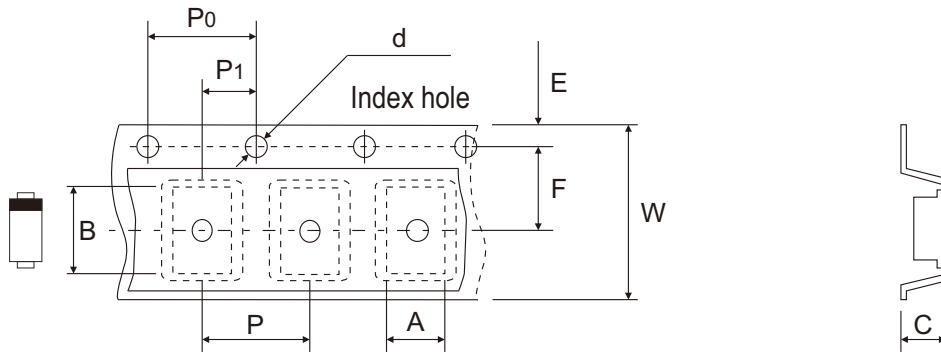


Fig.2 - Leakage Current vs. Junction Temperature



Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.46 ± 0.05	3.30 ± 0.05	1.25 ± 0.05	1.50 + 0.10	178.00 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.057 ± 0.002	0.130 ± 0.002	0.049 ± 0.002	0.059 + 0.004	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

SOD-323	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 + 0.30 - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 + 0.012 - 0.004	0.374 ± 0.039

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

REV:A

Marking Code

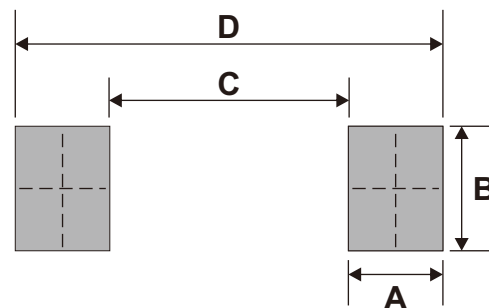
Part Number	Marking Code
A1N4148WS-HF	T4



= Cathode band

Suggested PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	0.63	0.025
B	0.83	0.033
C	1.60	0.063
D	2.85	0.112



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

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-323	3,000	7