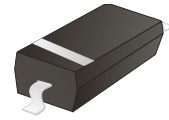


ACDSW4148-HF

Reverse Voltage: 100 V
Forward Current: 150 mA
RoHS Device
Halogen Free

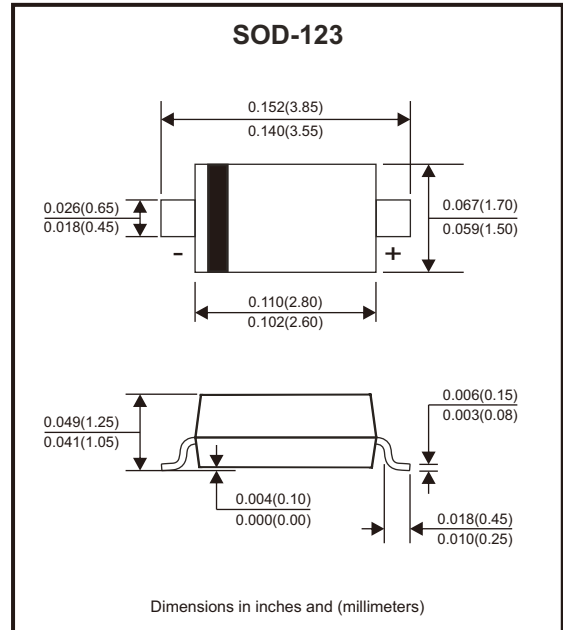


Features

- Fast switching speed.
- Surface mount package ideally suited for automatic insertion.
- For general purpose switching applications.
- High conductance.
- AEC-Q101 Qualified.

Mechanical data

- Case: SOD-123, molded plastic.
- Polarity: indicated by cathode band.
- Mounting position: Any.



Circuit Diagram



Maximum Ratings (Single diode, at Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	V_{RM}	100	V
Peak repetitive peak reverse voltage	V_{RRM}	100	V
Working peak reverse voltage	V_{RWM}		
DC blocking voltage	V_R		
RMS reverse voltage	$V_{R(RMS)}$	71	V
Forward continuous current	I_{FM}	300	mA
Average rectified output current	I_o	150	mA
Non-repetitive peak forward surge current @ t = 8.3ms	I_{FSM}	2	A
Power dissipation	P_D	350	mW
Thermal resistance from junction to ambient (Note 1)	$R_{\theta JA}$	357.1	°C/W
Operation junction and storage temperature range	T_J, T_{STG}	-55 to +150	°C

Notes: 1. Device mounted on 1"x1" FR4 PCB, 1 oz single-side copper.

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	IF = 1mA	VF			0.715	V
	IF = 10mA				0.855	
	IF = 50mA				1.0	
	IF = 150mA				1.25	
Reverse current	VR = 75V	IR			1	µA
	VR = 20V				25	nA
Capacitance between terminals	VR = 0V, f = 1MHz	CT			2	pF
Reverse recovery time	IF = IR = 10mA, I _{rr} = 0.1 x IR, RL = 100Ω	T _{rr}			4	nS

Rating and Characteristic Curves (ACDSW4148-HF)

Fig.1 - Forward Characteristics

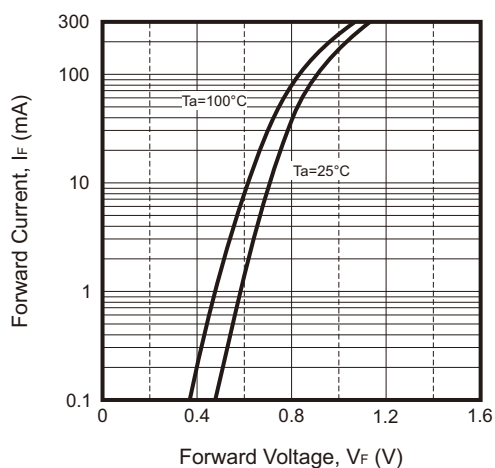


Fig.2 - Reverse Characteristics

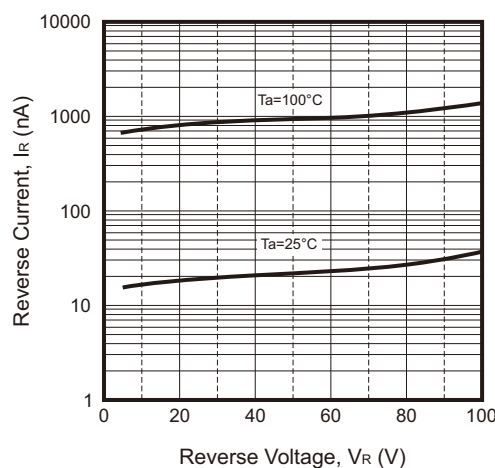


Fig.3 - Capacitance Characteristics

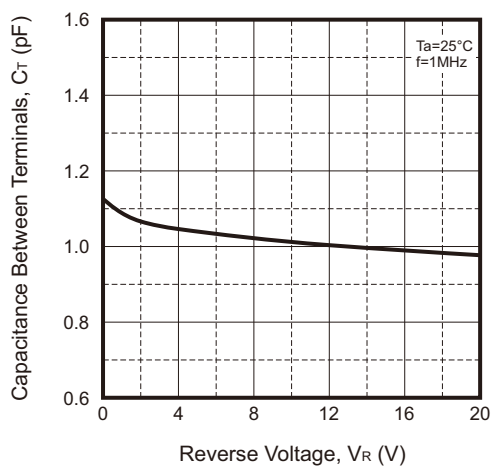
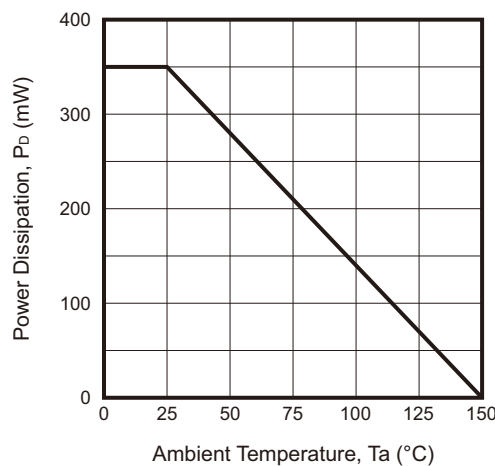
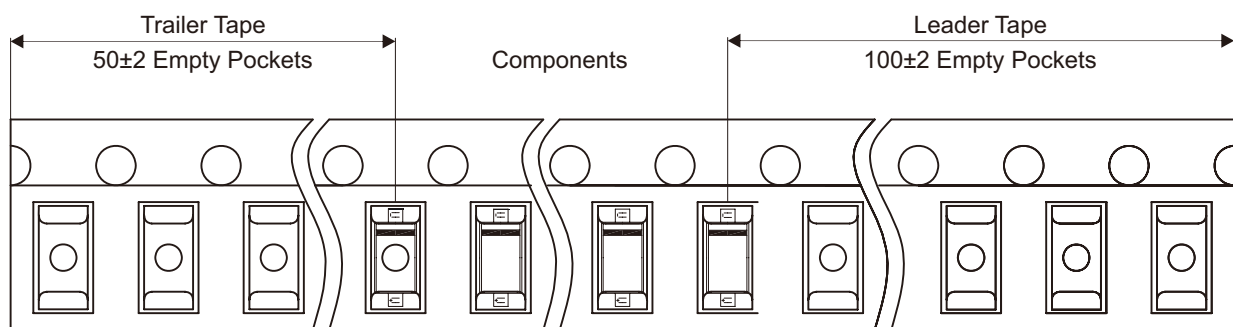
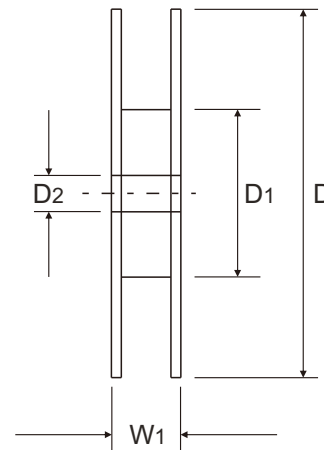
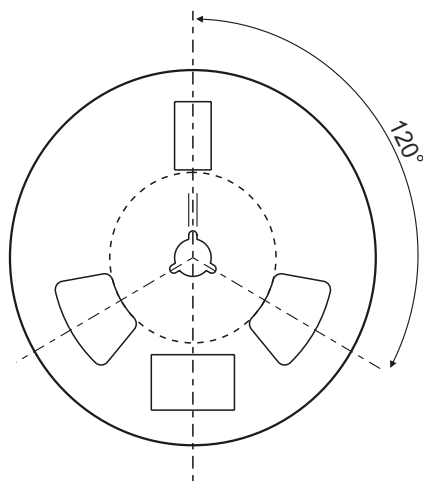
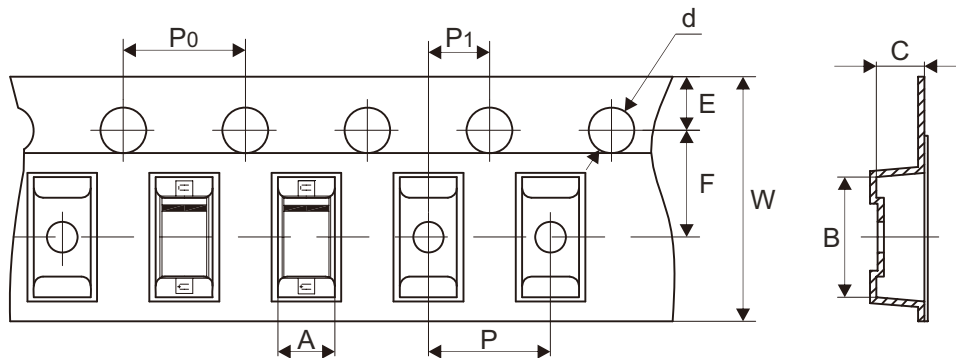


Fig.4 - Power Derating Curve



Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.10	3.95 ± 0.10	1.57 ± 0.10	1.55 ± 0.10	178.00 ± 1.00	54.40 ± 0.40	13.00 ± 0.20
	(inch)	0.073 ± 0.004	0.156 ± 0.004	0.062 ± 0.004	0.061 ± 0.004	7.008 ± 0.039	2.142 ± 0.016	0.512 ± 0.008

SOD-123	SYMBOL	E	F	P	P1	P0	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	2.00 ± 0.10	4.00 ± 0.10	8.00 ± 1.00	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.079 ± 0.004	0.157 ± 0.004	0.315 ± 0.039	0.484 ± 0.039

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

Marking Code

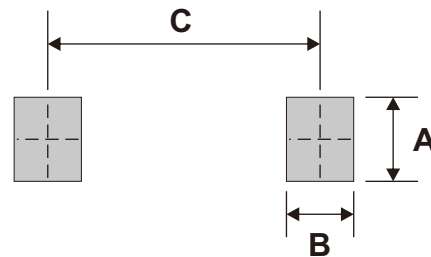
Part Number	Marking Code
ACDSW4148-HF	T4



■ = Cathode band
 Solid dot = Control code

Suggested P.C.B. PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	1.00	0.039
B	0.80	0.031
C	3.24	0.128



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

Standard Packaging

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