DACO

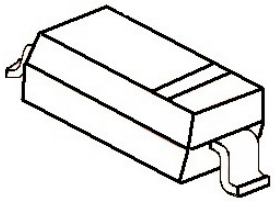
1N4148W

500mW SOD-123 Fast Switching Diode

Features

- 4.0nS; Fast Switching Device (TRR <4.0 nS)
- Power Dissipation of 500mW
- High Stability and High Reliability
- Low reverse leakage

SOD-123



MARKING:

Mechanical Data

- SOD-123 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting Position: Any

Maximum Ratings & Thermal Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Power Dissipation	Pd	500	mW
Operating junction temperature	Tj	150	℃
Storage temperature range	T_{STG}	-65-+150	℃
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	250	℃/W
Average Rectified Current	I_O	150	mA
Peak Forward Current	I_{FM}	300	mA
Non-Repetitive Forward Surge Current @tp=1us; TA=25℃	I_{FSM}	2.0	A

Valid provided that electrodes are kept at ambient temperature.

Electrical Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified).

Parameters	Symbol	Test Condition	Limits		Unit
			Min	Max	
Breakdown Voltage	Bv	IR=100uA	100		V
Reverse Leakage Current	IR	VR=20V	---	25	nA
		VR=20V Tj=150℃	---	50	uA
		VR=75	---	5	uA
Forward Voltage	VF	IF=10mA	---	1.00	V
		IF=100mA	---	1.25	
Reverse Recovery Time	TRR	IF = IR = 10mA,	---	4	nS
		Irr=0.1XIR			
		RL=100Ω			
Capacitance	C	VR=0V, f=1MHZ	---	4	pF

Fig.1 Forward Characteristics

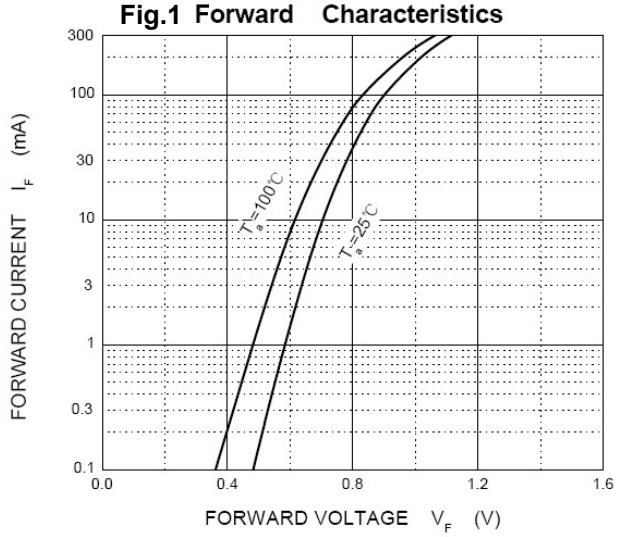


Fig.2 Reverse Characteristics

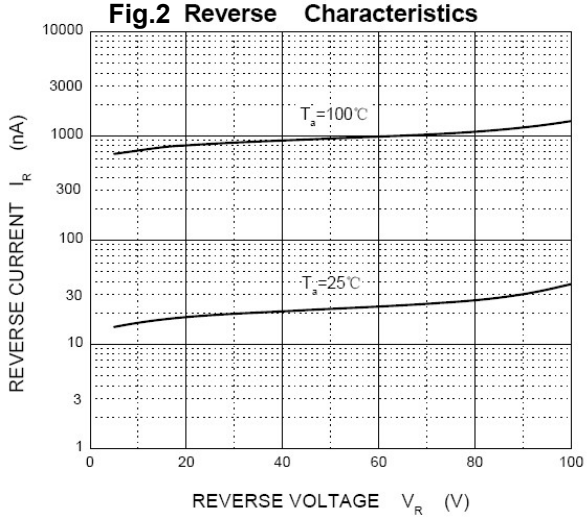


Fig.3 Capacitance Characteristics

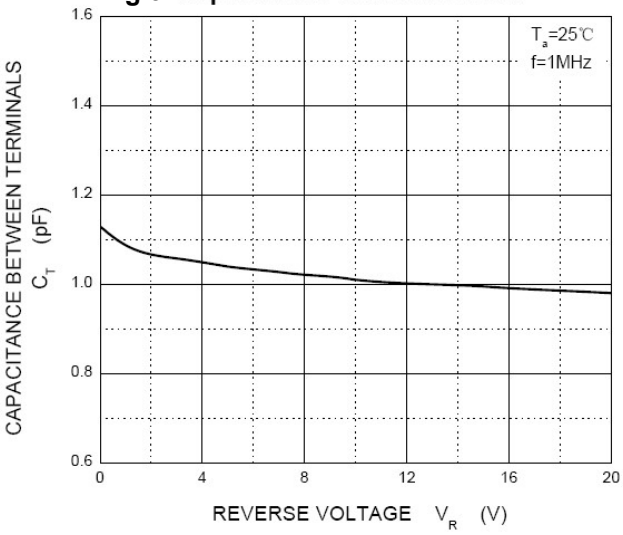
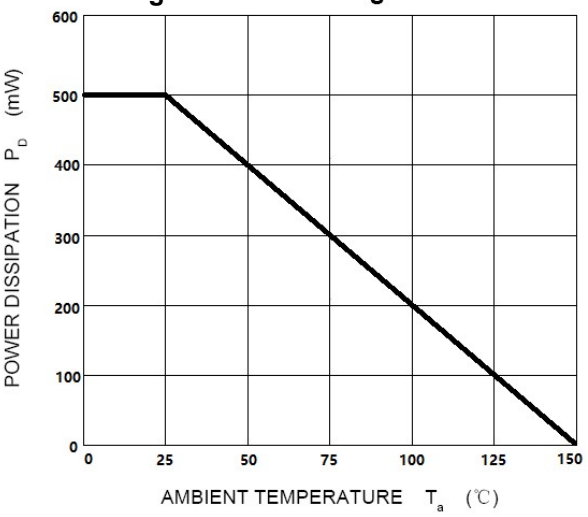
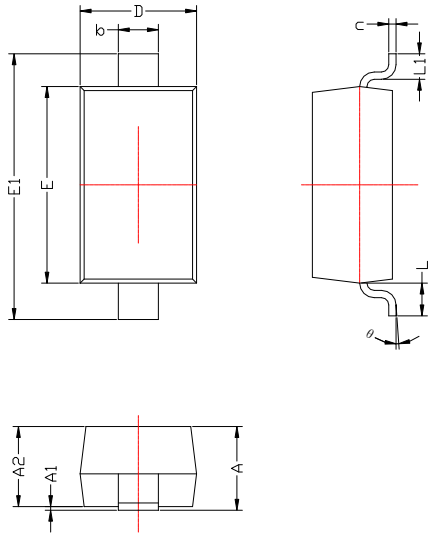


Fig.4 Power Derating Curve



SOD-123 PACKAGE OUTLINE

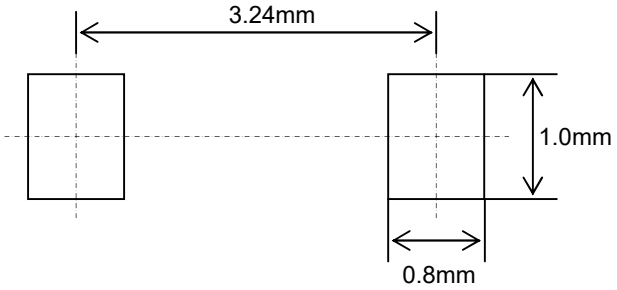
Plastic surface mounted package



mm

SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500REF	
L1	0.250	0.450
θ	0°	8°

Precautions: PCB Design
Recommended land dimensions for SOD-123 diode. Electrode patterns for PCBs



Unspecified dimension tolerance: ±0.5 mm

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