

# 1N4148W

## 500mW SOD-123 Fast Switching Diode



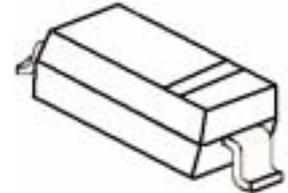
### 特征 Features

- 开关速度小于 4.0nS; Fast Switching Device (TRR <4.0 nS)
- 最大功率耗散 500mW; Power Dissipation of 500mW
- 高稳定性和可靠性。High Stability and High Reliability
- 反向漏电流小。Low reverse leakage

### 机械数据 Mechanical Data

- 封装: SOD-123 封装 Flat Lead SOD-123 Small Outline Plastic Package
- 极性: 色环端为负极 Polarity: Color band denotes cathode end
- 安装位置 任意 Mounting Position: Any

SOD-123



MARKING: T4

极限值和温度特性(TA = 25 除非另有规定)

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

参数 Parameters	符号 Symbol	数值 Value	单位 Unit
反向电压 Reverse Voltage	V <sub>R</sub>	75	V
反向峰值电压 Peak Reverse Voltage	V <sub>RM</sub>	100	V
功率消耗 Power Dissipation	P <sub>d</sub>	500	mW
工作结温 Operating junction temperature	T <sub>j</sub>	150	
存储温度 Storage temperature range	T <sub>s</sub>	-65-+150	
反向工作电压 Working Inverse Voltage	W <sub>IV</sub>	75	V
平均整流电流 Average Rectified Current	I <sub>O</sub>	150	mA
正向(不重复)电流 Non-repetitive Peak Forward Current	I <sub>FM</sub>	300	mA
正向(不重复)浪涌电流 Peak Forward Surge Current	I <sub>FSM</sub>	2.0	A

@tp=1us; TA=25

Valid provided that electrodes are kept at ambient temperature.

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

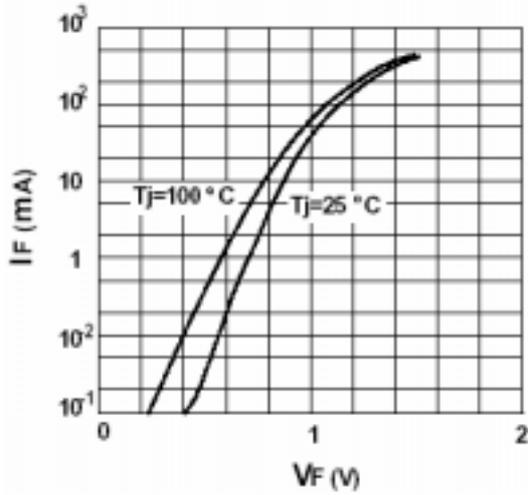
符号 Symbols	参数 Parameter	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
BV	反向击穿电压 Breakdown Voltage	IR=100uA	100		V
		IR=5uA	75		
IR	反向漏电流 Reverse Leakage Current	VR=20V	---	25	nA
		VR=75	---	5	uA
VF	正向电压 Forward Voltage	IF=10mA	---	1.0	V
		IF=100mA	---	1.0	
TRR	反向恢复时间 Reverse Recovery Time	IF= 10mA, IR=60mA RL=100Ω IRR=1mA	---	4	nS
C	结电容 Capacitance	VR=0V, f=1MHZ	---	4	pF

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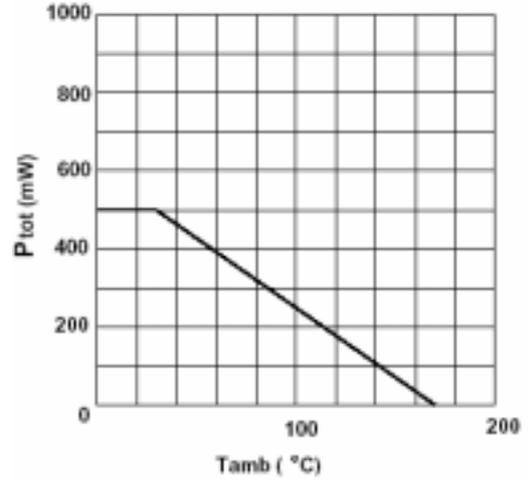
## 500mW SOD-123 Fast Switching Diode



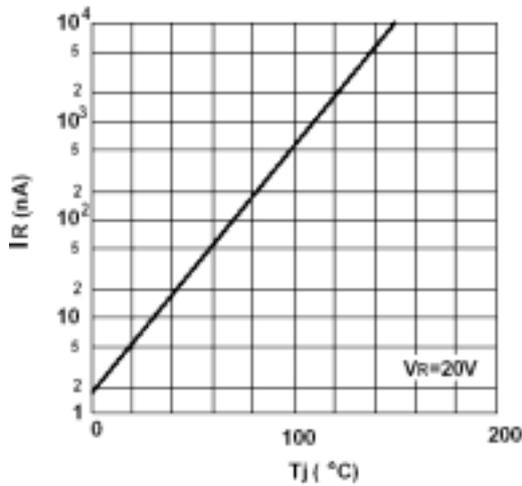
Forward characteristics



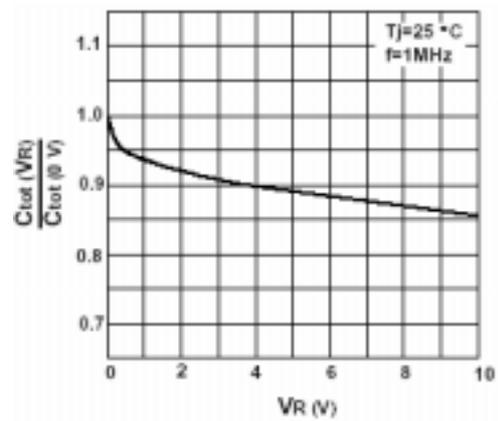
Admissible power dissipation versus ambient temperature



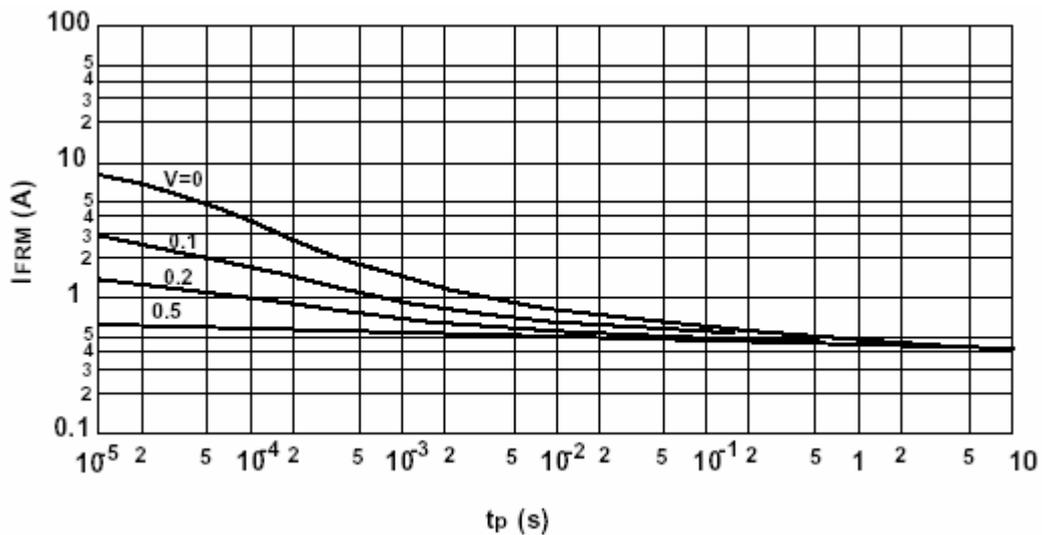
Leakage current versus junction temperature



Reverse capacitance VS. reverse voltage



Admissible repetitive peak forward current VS. pulse duration

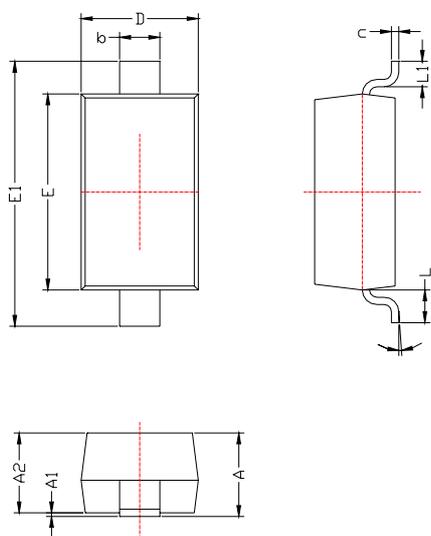


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## 500mW SOD-123 Fast Switching Diode



Plastic surface mounted package

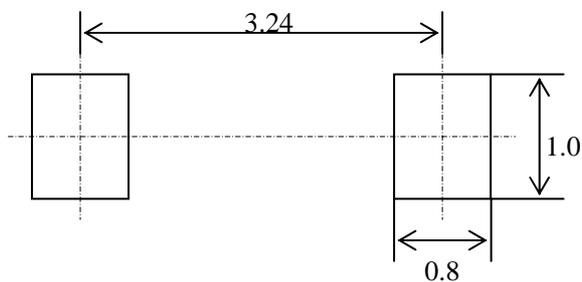


SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500REF	
L1	0.250	0.450
	0°	8°

### 焊盘设计参考

Precautions: PCB Design

Recommended land dimensions for SOD-123 diode. Electrode patterns for PCBs



中心距: 3.24  
脚宽: 0.55  
焊盘宽: 1.00  
脚长: 0.50  
焊盘长: 0.80

技术要求:

- 1, 塑封体尺寸: 2.70 X 1.60
- 2: 未注公差为:  $\pm 0.05$
- 3, 所有单位: mm