



500mW SOD-123 Fast Switching Diode

1N4148W

Features

Fast Switching Device (TRR <4.0 nS)

Power Dissipation of 500mW

High Stability and High Reliability

Low reverse leakage

Mechanical Data

Cases :SOD-123 Small Outline Plastic Package

Polarity: Color band denotes cathode end

Mounting Position: Any

Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Reverse Voltage	V_R	75	V
Peak Reverse Voltage	V_{RM}	100	V
Power Dissipation	P_d	500	mW
Operating junction temperature	T_j	150	°C
Storage temperature range	T_s	-65-+150	°C
Working Inverse Voltage	W_{IV}	75	V
Average Rectified Current	I_o	150	mA
Non-repetitive Peak Forward Current	I_{FM}	300	mA
Peak Forward Surge Current@ $t_p=1\mu s$; $T_A=25^\circ C$	I_{FSM}	2.0	A

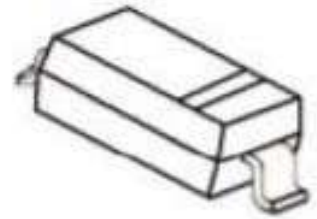
Valid provided that electrodes are kept at ambient temperature.

Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
BV	Breakdown Voltage	$I_R=100\mu A$	100		V
IR	Reverse Leakage Current	$V_R=75V$	---	5	μA
VF	Forward Voltage	$I_F=10mA$	---	1.00	V
		$I_F=100mA$	---	1.10	
TRR	Reverse Recovery Time	$I_F = I_R = 10mA,$	---	4	nS
		$I_{rr}=0.1 \times I_R$			
		$R_L=100\Omega$			
C	Capacitance	$V_R=0V, f=1MHz$	---	4	pF

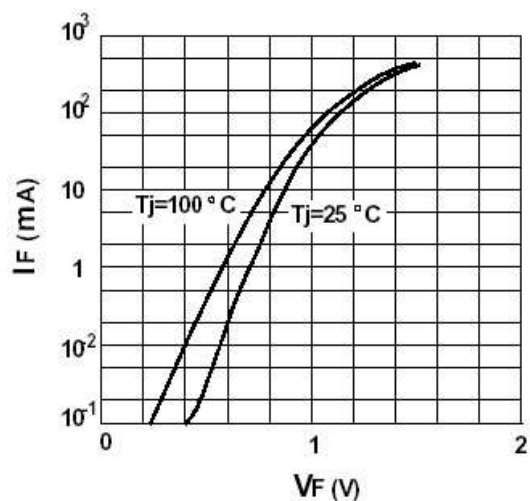
SOD-123



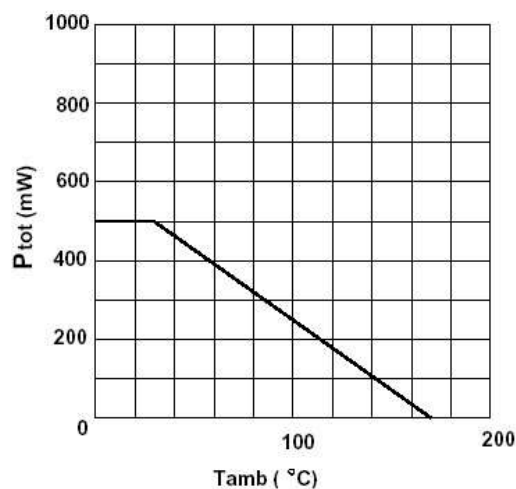
MARKING: T4Y/T4



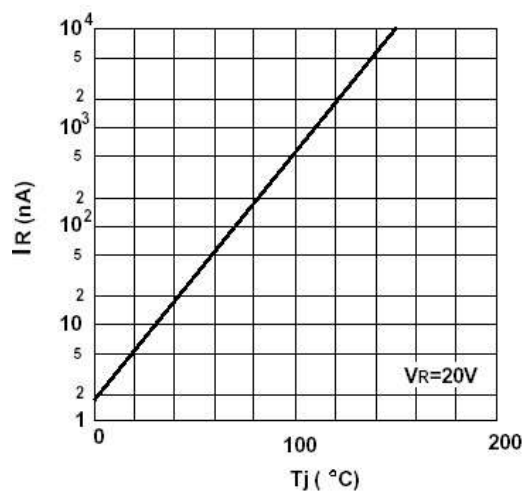
Forward characteristics



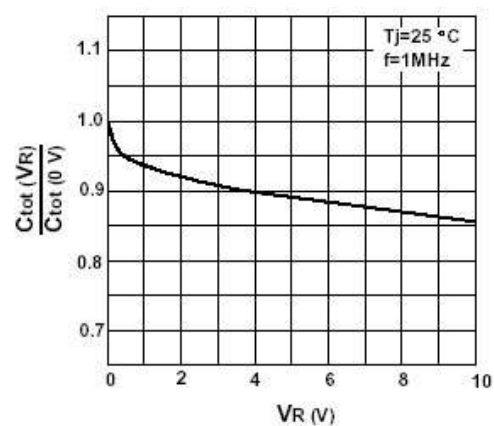
Admissible power dissipation versus ambient temperature



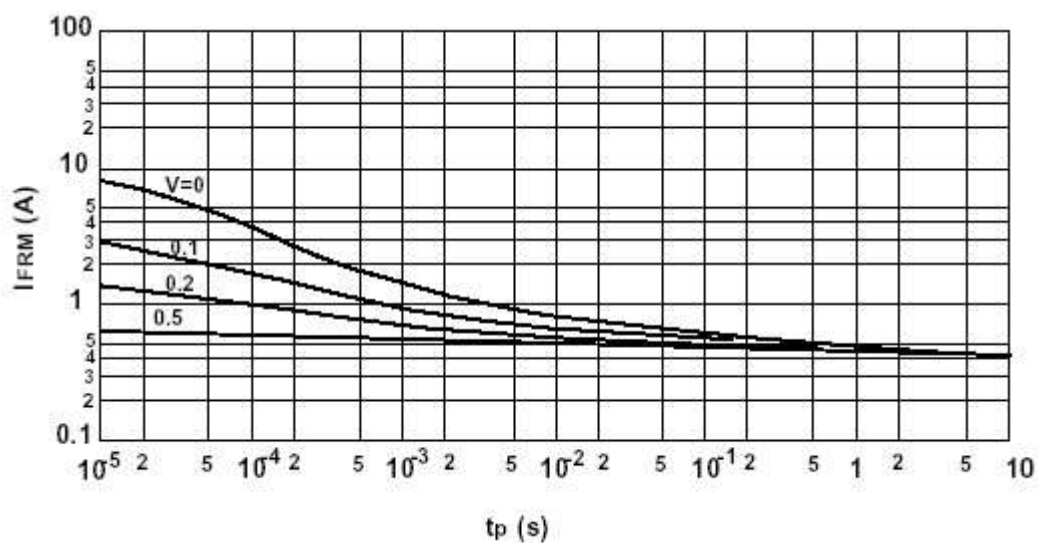
Leakage current versus junction temperature



Reverse capacitance VS. reverse voltage



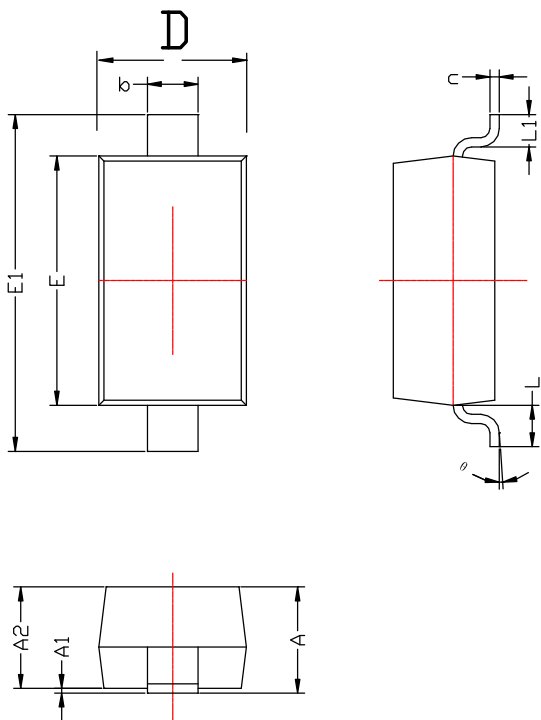
Admissible repetitive peak forward current VS. pulse duration





SOD-123 Plastic-Encapsulate Zener Diode

SOD-123 PACKAGE OUTLINE Plastic surface mounted package



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.950	1.350
A1	0.000	0.100
A2	0.950	1.250
b	0.450	0.650
c	0.050	0.150
D	1.500	1.800
E	2.500	2.800
E1	3.550	3.850
L	0.500REF	
L1	0.250	0.450
θ	0°	8°