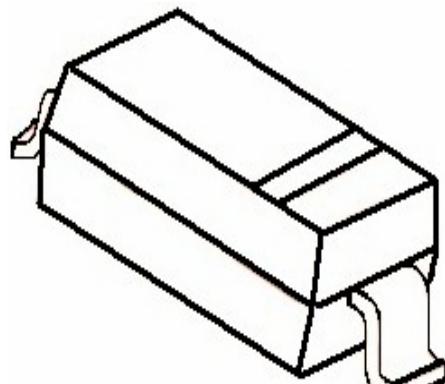


## »Features

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

**SOD-123**

## »General Description

- SOD-123 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

## »Absolute Maximum Ratings @ $T_A=25^\circ\text{C}$ unless otherwise noted

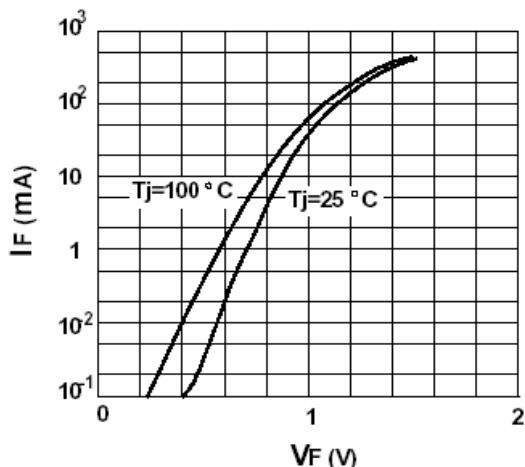
Parameters	Symbol	Value	Unit
Reverse Voltage	$V_R$	75	V
Peak Reverse Voltage	$V_{RM}$	100	V
Power Dissipation	$P_d$	500	mW
Operating junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-65+150	$^\circ\text{C}$
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	250	$^\circ\text{C}/\text{W}$
Average Rectified Current	$I_o$	150	mA
Non-repetitive Peak Forward Current	$I_{FM}$	300	mA
Peak Forward Surge Current @ $t_p=1\mu\text{s}$ ; $T_A=25^\circ\text{C}$	$I_{FSM}$	2.0	A

Valid provided that electrodes are kept at ambient temperature.

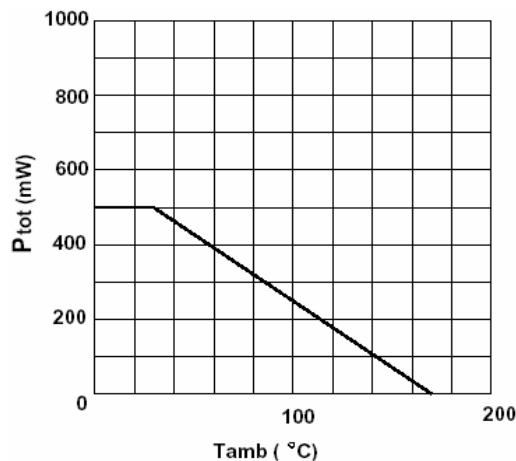
»**Electrical Characteristics** @ $T_A=25^\circ\text{C}$  unless otherwise noted

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

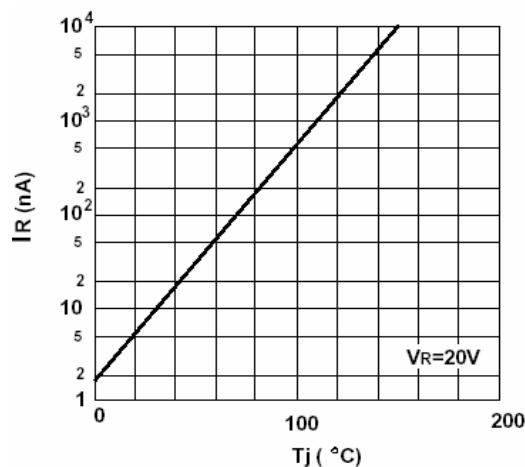
»Typical Performance Characteristics (( $T_j = 25^\circ\text{C}$ , unless otherwise noted))



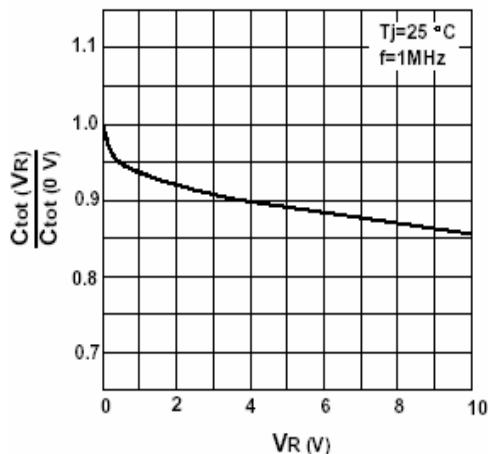
Forward characteristics



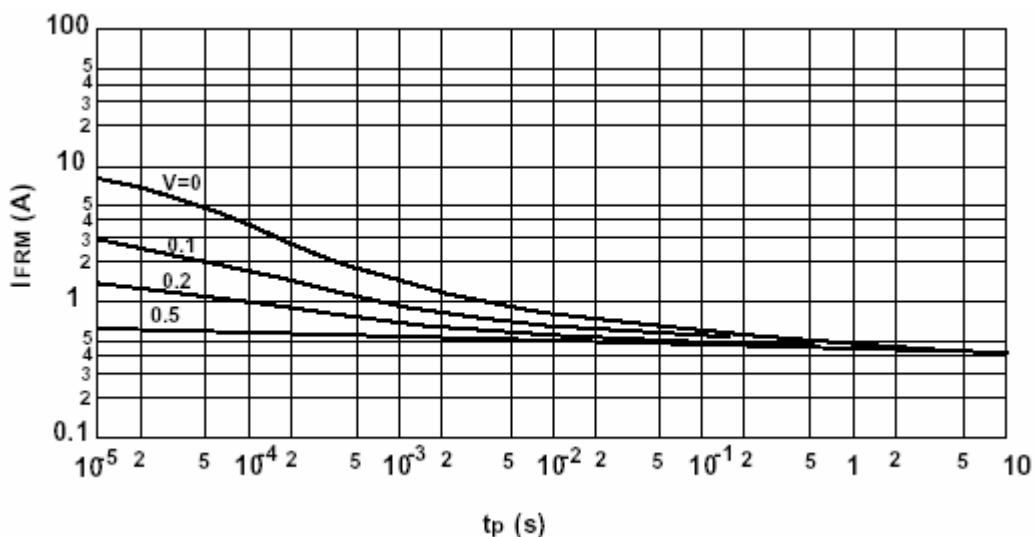
Admissible power dissipation versus ambient temperature



Leakage current versus junction temperature



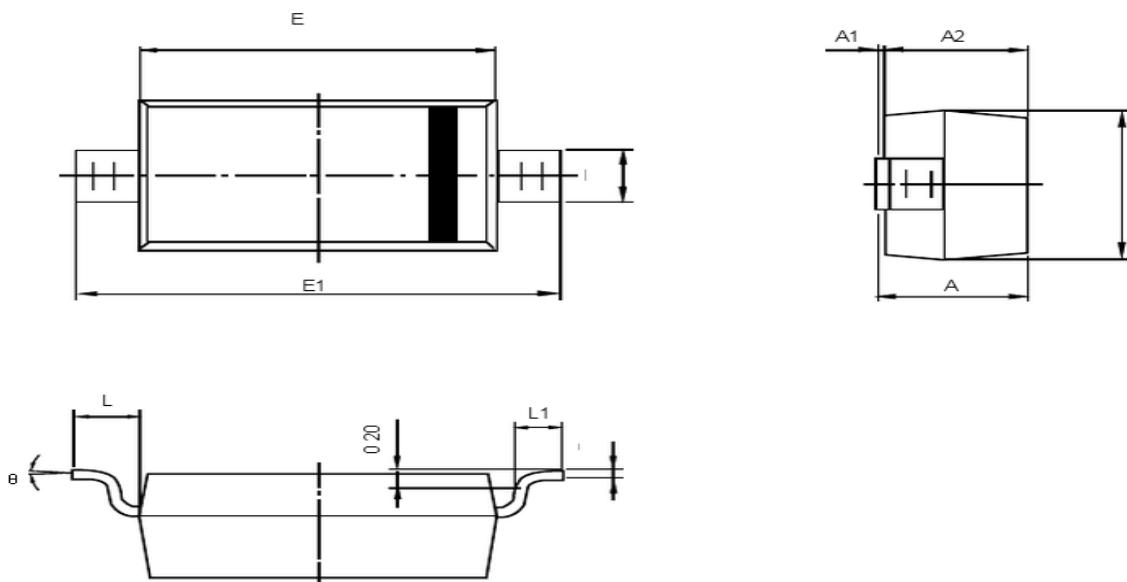
Reverse capacitance VS. reverse voltage



Admissible repetitive peak forward current VS. pulseduration

## »Package Information

SOD-123



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500REF		0.020REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

## »Ordering information

Order code	Package	Marking	Base qty	Delivery mode
1N4148W	SOD-123	T4	3K	Tape and reel