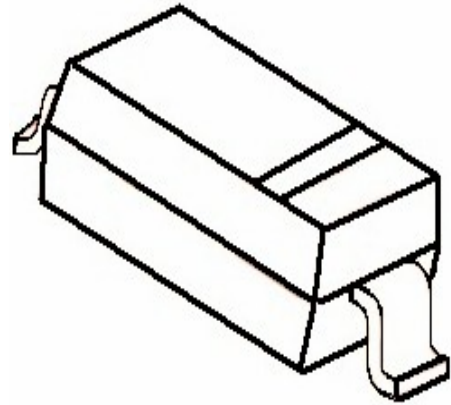


## »Features

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

## »General Description

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



**SOD-123**

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

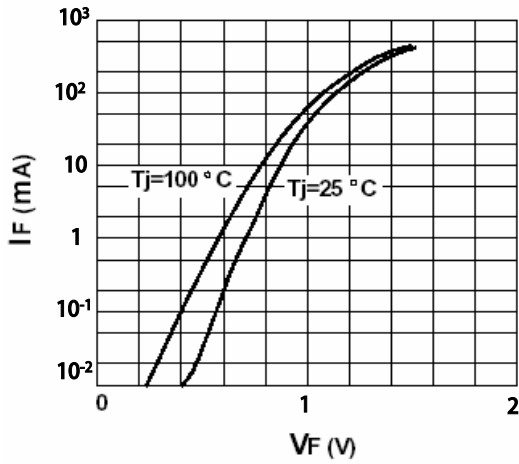
Parameters	Symbol	Value	Unit
Reverse Voltage	$V_R$	75	V
Peak Reverse Voltage	$V_{RM}$	100	V
Power Dissipation	$P_d$	500	mW
Operating junction temperature	$T_j$	150	$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-65-+150	$^{\circ}\text{C}$
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	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.

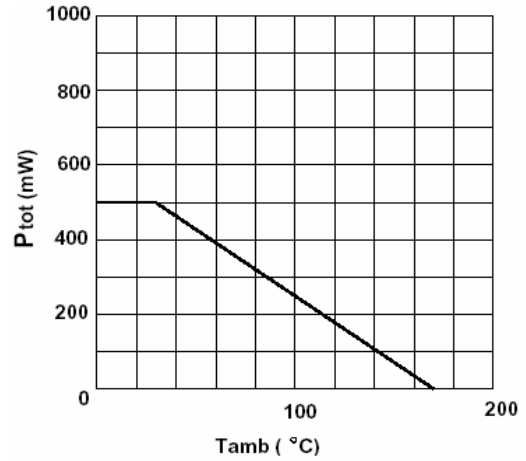
» **Electrical Characteristics** @ $T_A=25^{\circ}\text{C}$  unless otherwise noted

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

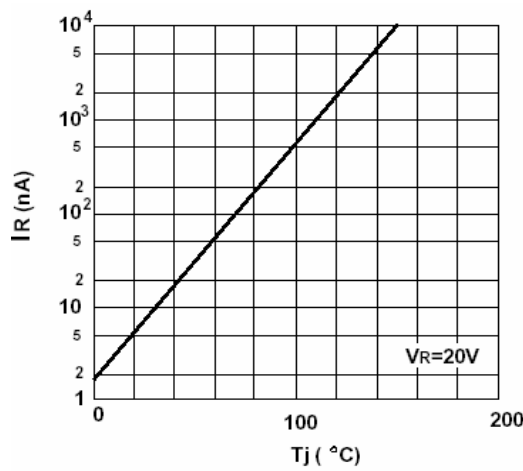
»Typical Performance Characteristics (T<sub>J</sub> = 25 °C, unless otherwise noted)



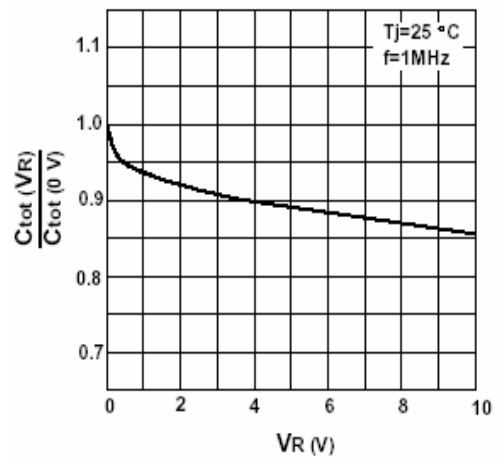
Forward characteristics



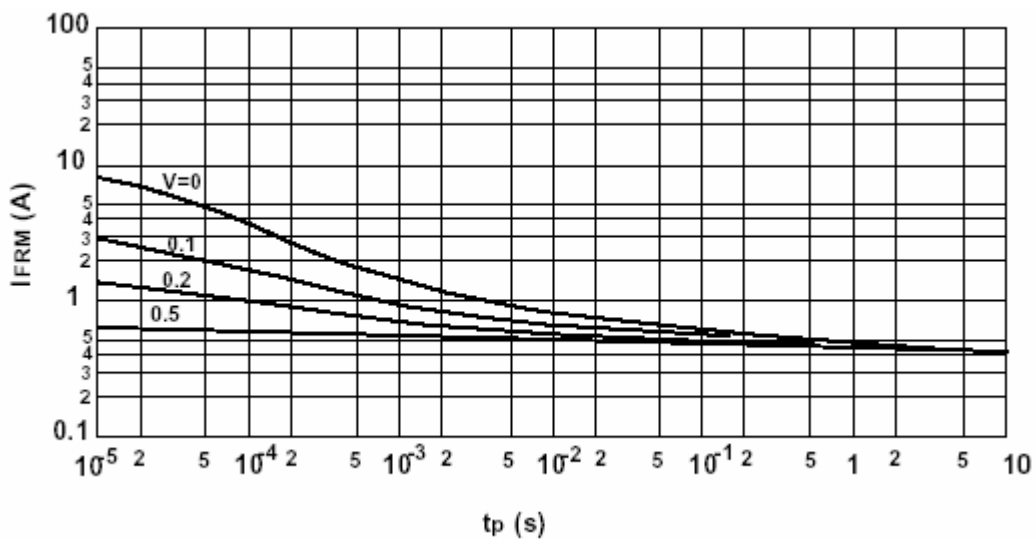
Admissible power dissipation versus ambient temperature



Leakage current versus junction temperature



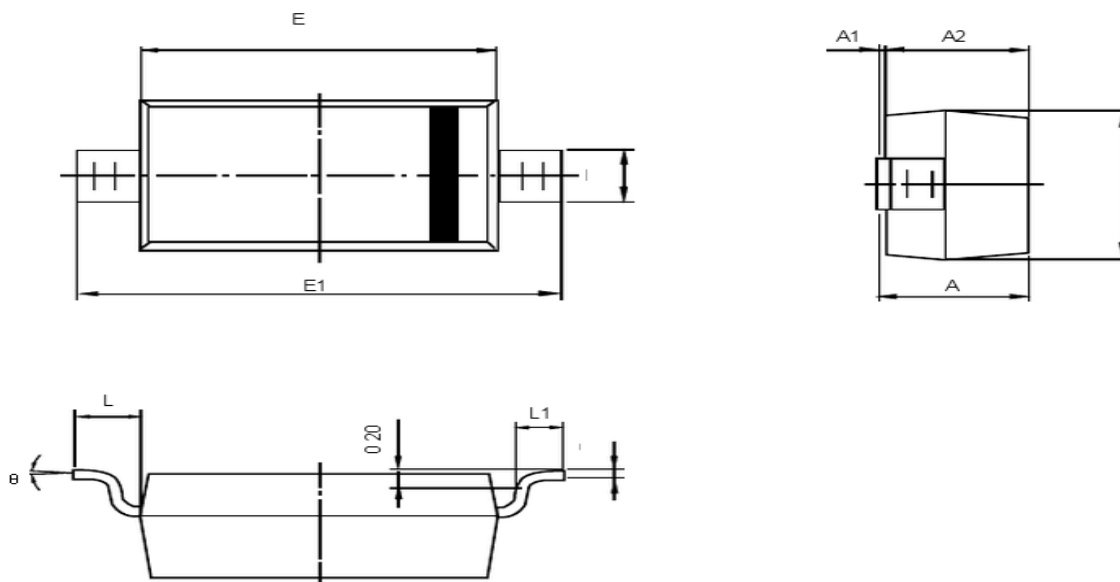
Reverse capacitance VS. reverse voltage



Admissible repetitive peak forward current VS. pulse duration

»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