

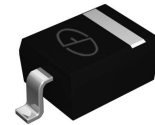
## 500mW SOD- 123 Fast Switching Diode

### Features

- 4.0nS; Fast switching device (TRR <4.0nS)
- 500mW; power dissipation of 500mW
- High stability and high reliability
- Low reverse leakage

### Mechanical Data

- SOD-123 small outline plastic package
- Polarity: color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting position: any



**Marking: T4 SOD-123**

Maximum Ratings & Thermal Characteristics ( $T_A=25^\circ\text{C}$ 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	$^\circ\text{C/W}$
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

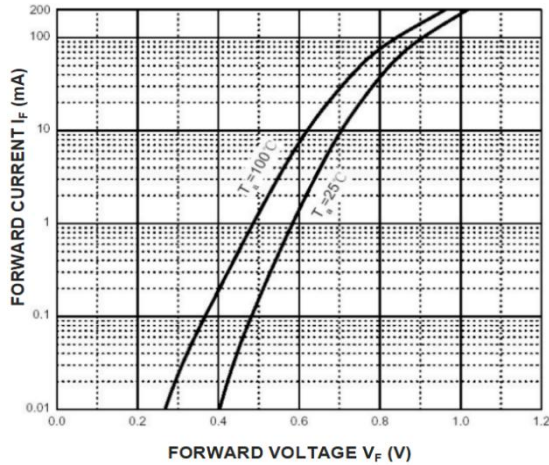
Valid provided that electrodes are kept at ambient temperature.

Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise noted)					
Parameter	Symbol	Test Condition	Limits		Unit
			Min	Max	
Breakdown Voltage	BV	IR=100uA	100		V
		IR=5uA	75		
Reverse Leakage Current	IR	VR=20V		25	nA
		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

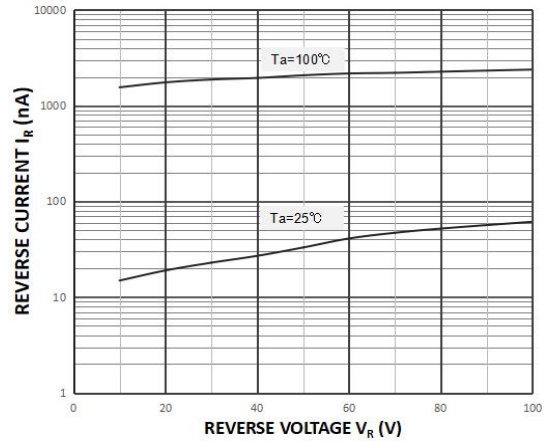
## Ratings and Characteristics Curves

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

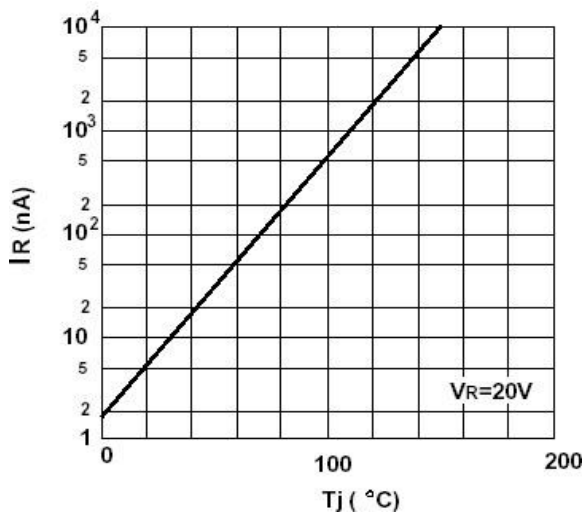
**Forward characteristics**



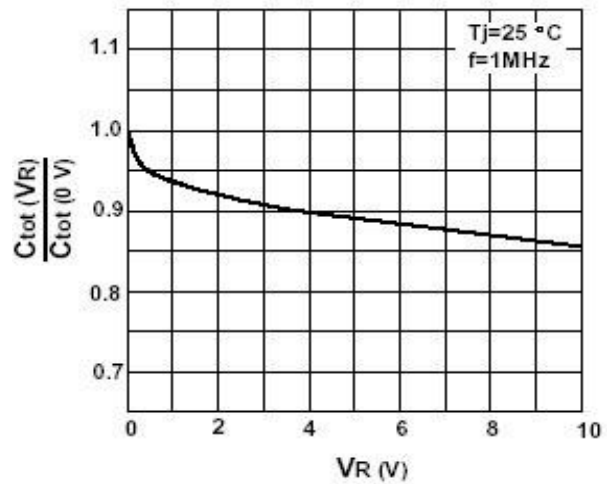
**Reverse Characteristics**



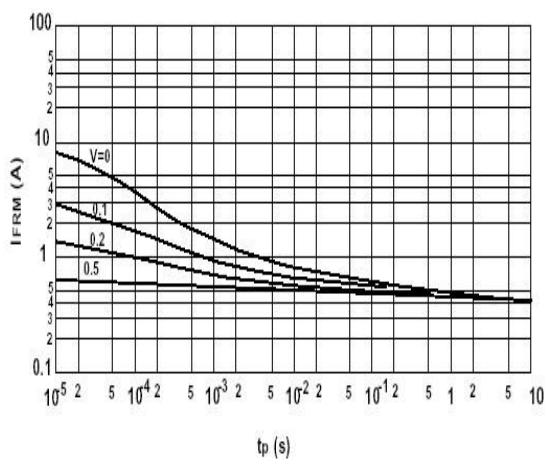
**Leakage current versus junction temperature**



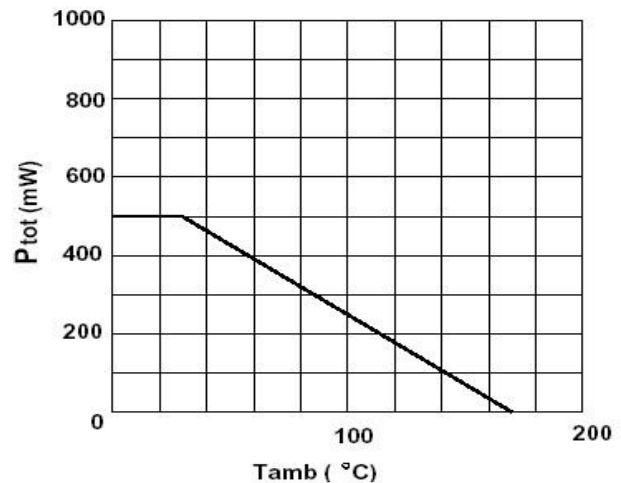
**Reverse capacitance VS. reverse Voltage**



**Admissible repetitive peak forward current VS. pulse duration**

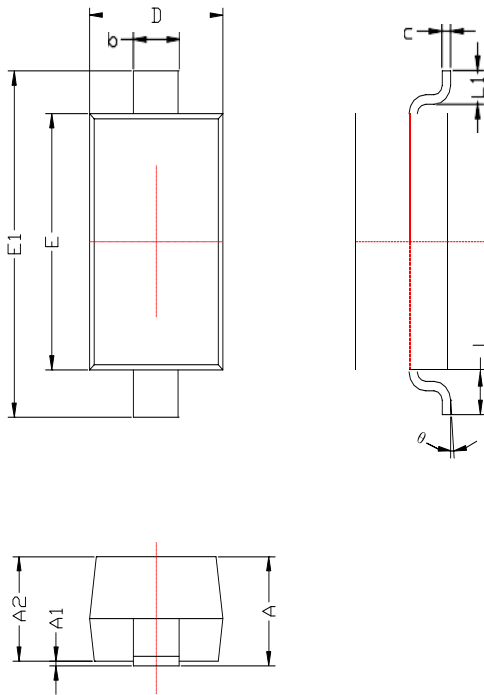


**Admissible power dissipation versus ambient**



## Package Outline Dimensions

in inches (millimeters)



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°

## Revision History

Document Version	Date of release	Description of changes
Rev.A	2015.07.21	First issue

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