

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: T6 SOD-123

Maximum Ratings& Thermal Characteristics (T_A=25°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	°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 @tp=1us; TA=25 °C	I _{FSM}	2.0	A

Valid provided that electrodes are kept at ambient temperature.

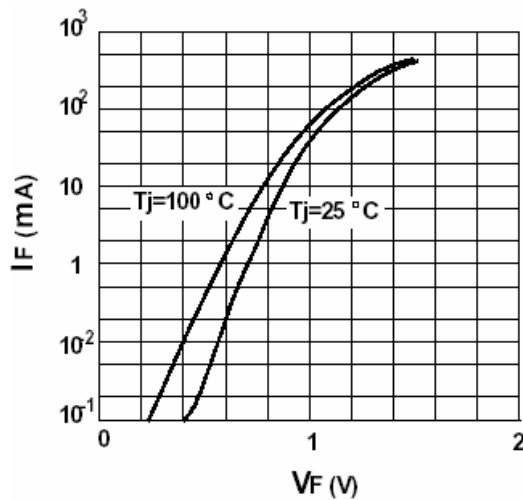
Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbols	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		1	uA
Forward voltage	VF	IF=150mA		1.25	V
		IF=50mA		1.00	
		IF=10mA		0.885	
		IF=1.0mA		0.715	
Reverse recovery time	TRR	IF = 10ma IR= 60mA,		4	nS
		Irr=1mA			
		RL=100Ω			
Capacitance	CJ	VR=0V, f=1MHZ		2	pF

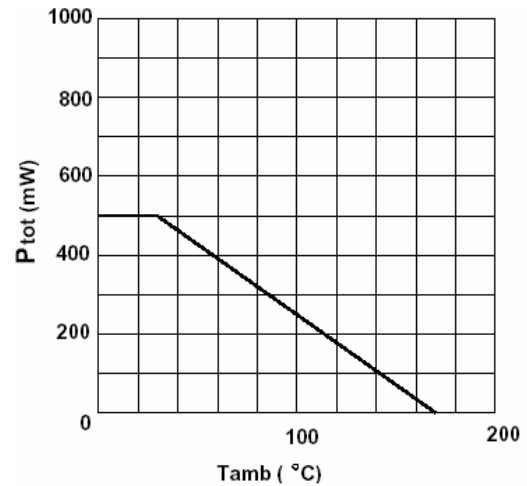
Ratings and Characteristics Curves

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

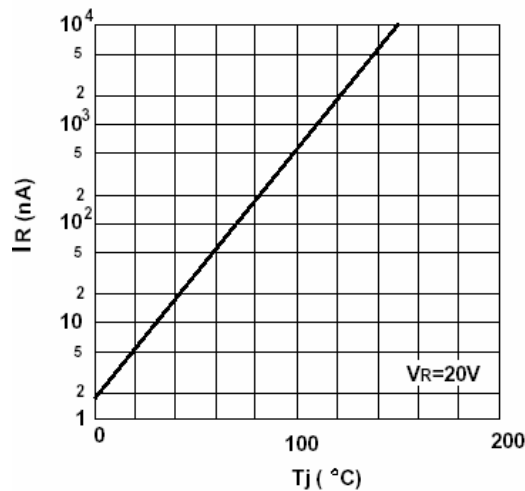
Forward characteristics



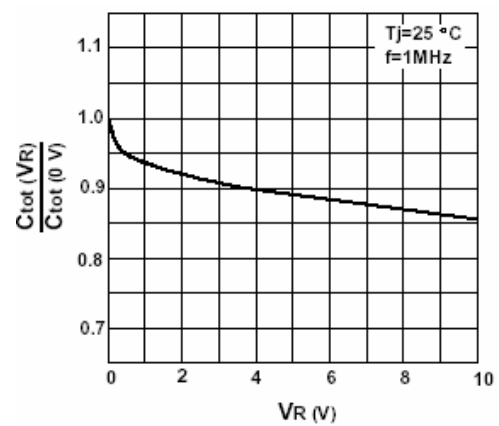
Admissible power dissipation versus ambient temperature



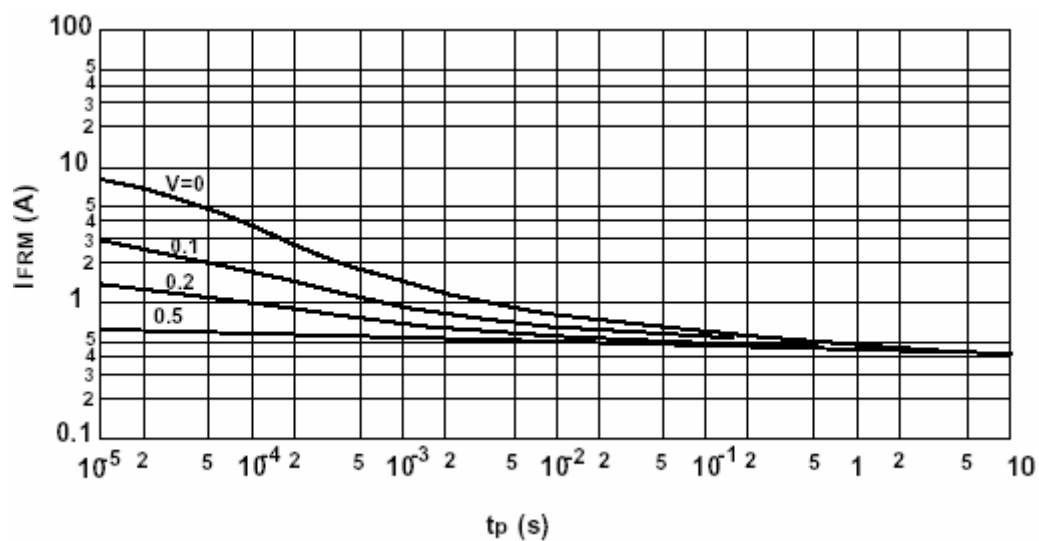
Leakage current versus junction temperature



Reverse capacitance VS. reverse voltage

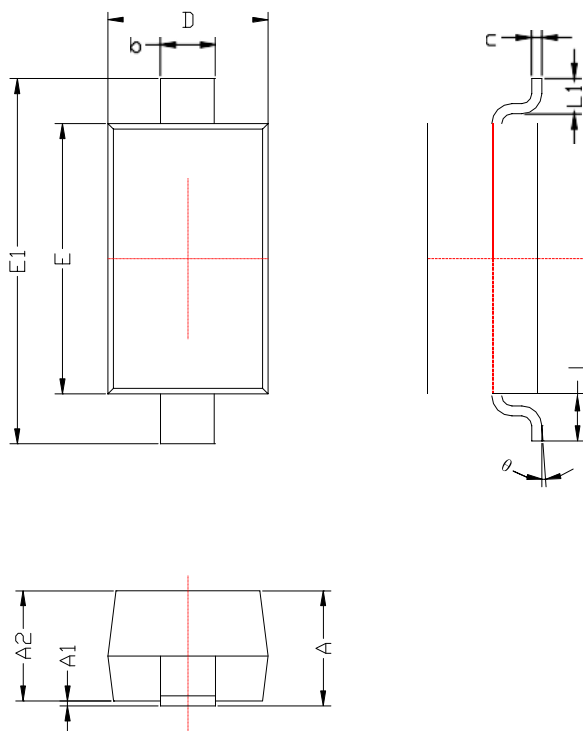


Admissible repetitive peak forward current VS. pulse duration



Package Outline Dimensions

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	2015.04.10	First issue

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