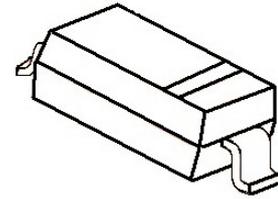


500mW SOD-123 Fast Switching Diode

Features

- Fast Switching Device (TRR <4.0 nS)
- 500mW; Power Dissipation of 500mW
- High Stability and High Reliability
- Low reverse leakage
- AEC-Q 101 qualified (Automotive grade with suffix " Q ")

SOD-123



MARKING: T6

Mechanical Data

- SOD-123 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting Position: Any

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

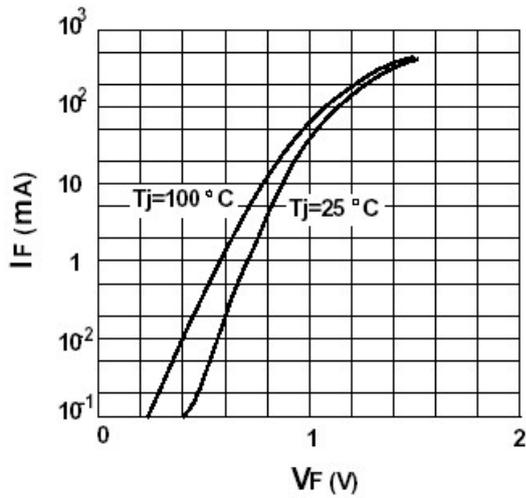
Parameters	Symbol	Value	Unit
Reverse Voltage	V_R	75	V
Peak Reverse Voltage	V_{RM}	100	V
Power Dissipation	P_d	500	mW
Operating junction temperature	T_j	150	°C
Storage temperature range	T_s	-55-+150	°C
Working Inverse Voltage	W_{IV}	75	V
Average Rectified Current	I_o	150	mA
Non-repetitive Peak Forward 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.

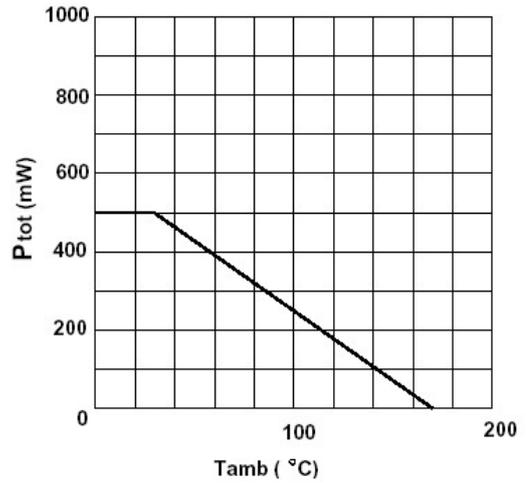
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
BV	Breakdown Voltage	$I_R=100\mu A$	100		V
		$I_R=5\mu A$	75		
IR	Reverse Leakage Current	$V_R=20V$	---	25	nA
		$V_R=75$	---	1	uA
VF	Forward Voltage	$I_F=150mA$	---	1.25	V
		$I_F=50mA$	---	1.00	
		$I_F=10mA$	---	0.855	
		$I_F=1.0mA$	---	0.715	
TRR	Reverse Recovery Time	$I_F=10mA, I_R=60mA$ $R_L=100\Omega, I_{RR}=1mA$	---	4	nS
C	Capacitance	$V_R=0V, f=1MHZ$	---	2	pF

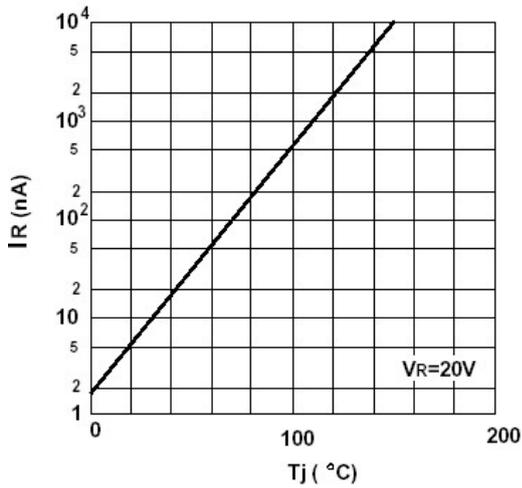
Forward characteristics



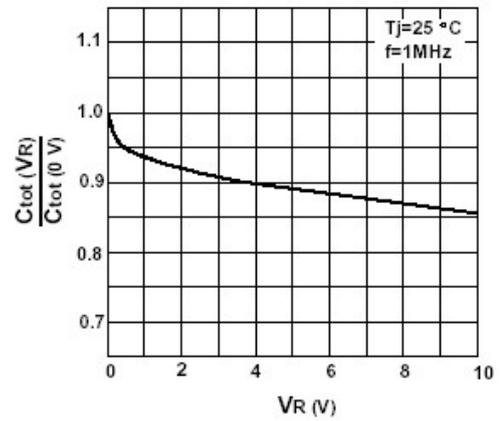
Admissible power dissipation versus ambient temperature



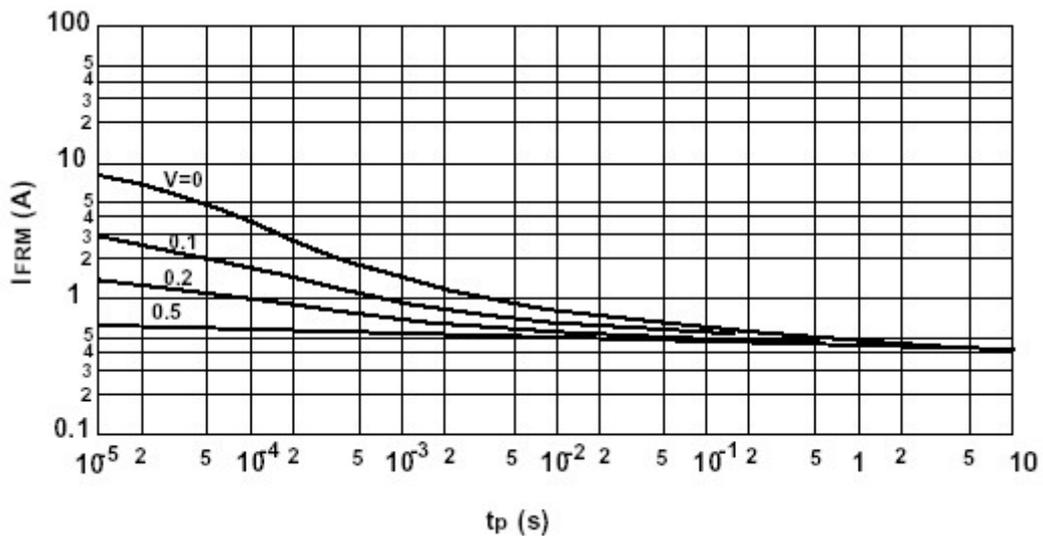
Leakage current versus junction temperature



Reverse capacitance VS. reverse voltage

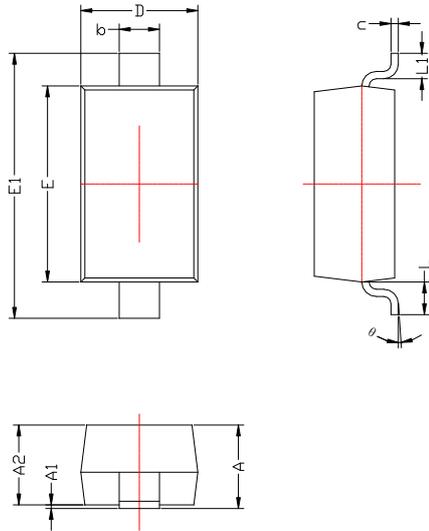


Admissible repetitive peak forward current VS. pulse duration



SOD-123 PACKAGE OUTLINE

Plastic surface mounted package

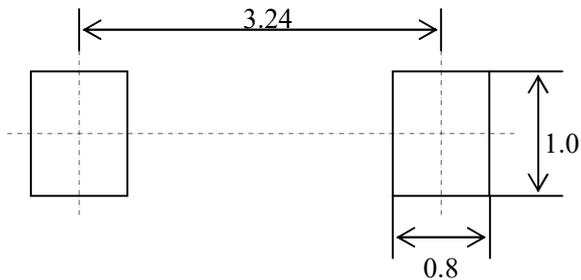


SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500REF	
L1	0.250	0.450
θ	0°	8°

焊盘设计参考

Precautions: PCB Design

Recommended land dimensions for SOD-123 diode. Electrode patterns for PCBs



中心距: 3.24
 脚宽: 0.55
 焊盘宽: 1.00
 脚长: 0.50
 焊盘长: 0.80

技术要求:

- 1, 塑封体尺寸: 2.70 X 1.60
- 2, 未注公差为: ± 0.05
- 3, 所有单位: mm