



■ Features

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

■ Applications

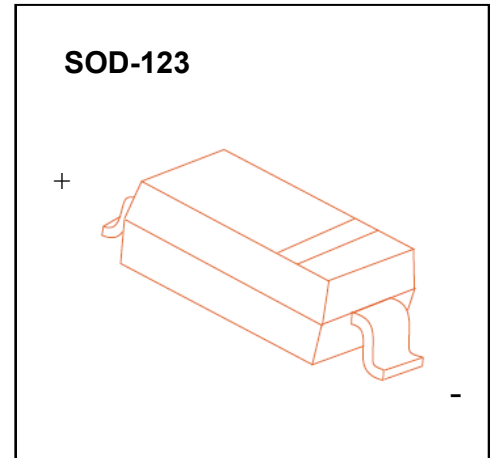
- For General Purpose Switching Applications

■ Mechanical Data

- package:SOD-123
- Polarity: Color band denotes cathode end
- Flammability rating of epoxy resin: UL 94V-0
- Mounting Position: Any.

■ Ordering Information

Part Number	Package	Marking	Packing	Quantity per reel	Reel Size
1N4148W	SOD-123	T4	Tape & Reel	3,000 PCS	7 inches



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

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

Valid provided that electrodes are kept at ambient temperature.

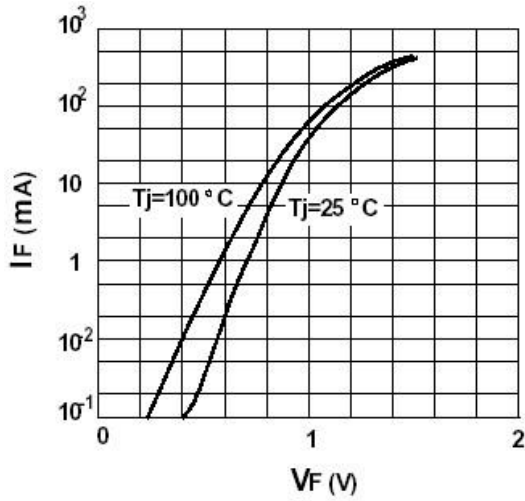
Electrical Characteristics(Ratings at 25 °C ambient temperature unless otherwise specified)

Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
BV	Breakdown Voltage	$I_R=100\mu A$	100		V
IR	Reverse Leakage Current	$V_R=20V$	---	25	nA
		$V_R=20V T_j=150^\circ C$	---	50	μA
		$V_R=75$	---	5	μA
VF	Forward Voltage	$I_F=10mA$	---	1.00	V
		$I_F=100mA$	---	1.25	
TRR	Reverse Recovery Time	$I_F = I_R = 10mA,$	---	4	nS
		$I_{rr}=0.1X I_R$			
		$R_L=100\Omega$			
C	Capacitance	$V_R=0V, f=1MHZ$	---	4	pF

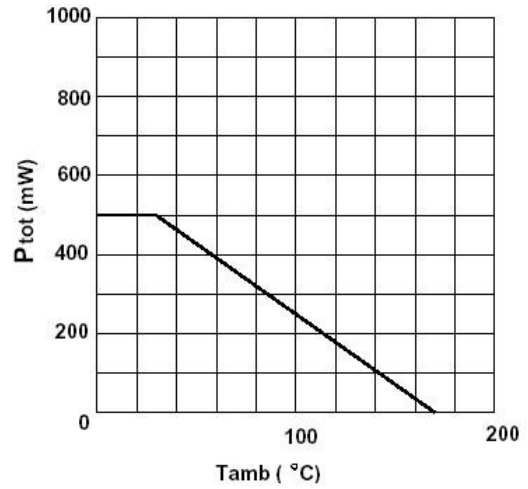


■ Typical Characteristics

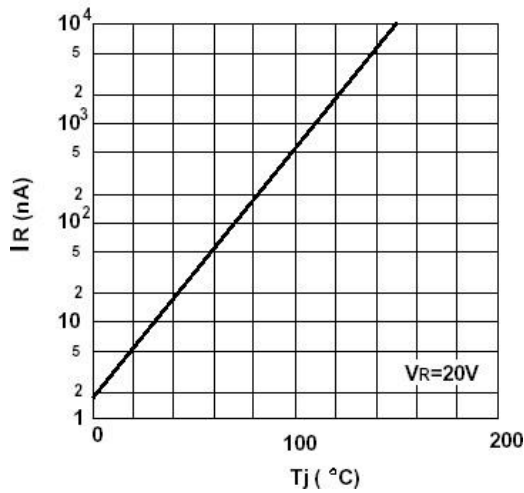
Forward characteristics



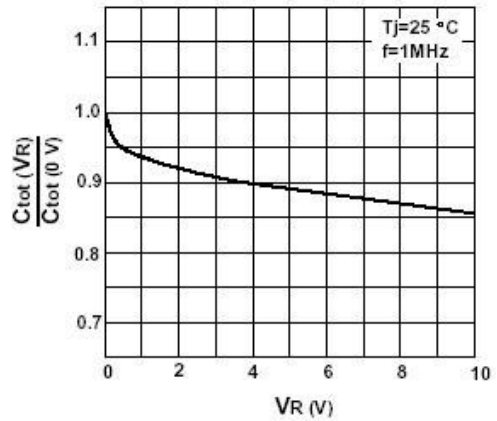
Admissible power dissipation versus ambient temperature



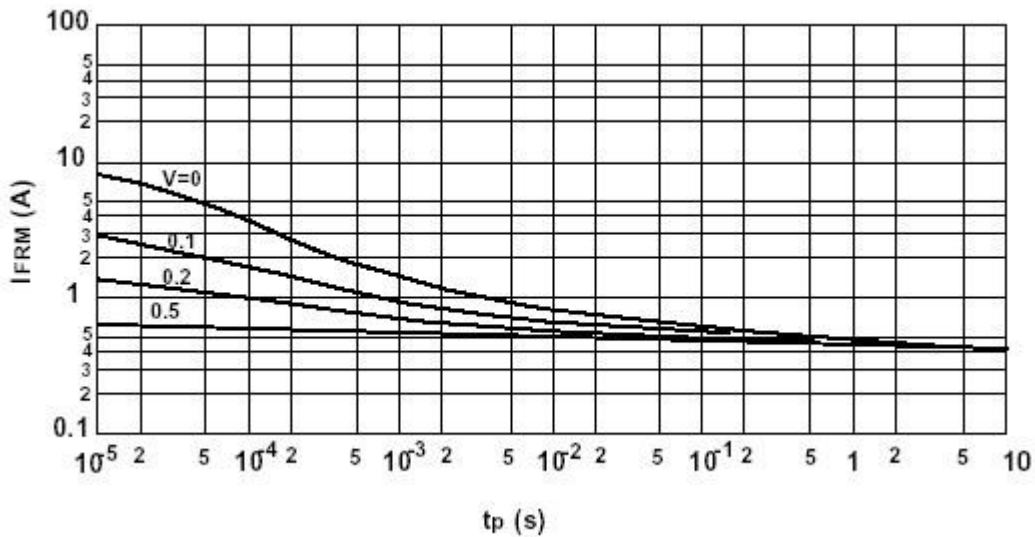
Leakage current versus junction temperature



Reverse capacitance VS. reverse voltage

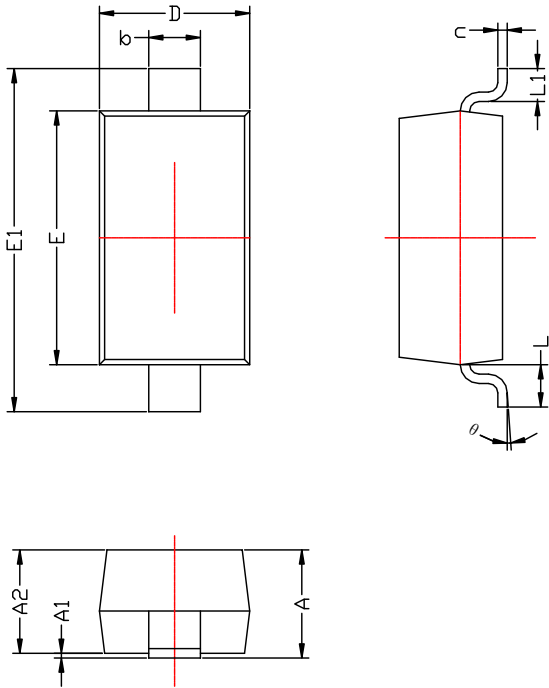


Admissible repetitive peak forward current VS. pulse duration





■ SOD-123 Package Outline Dimensions



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°