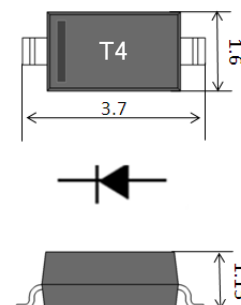


- ◇ Fast switching devices
- ◇ **SOD123** Micro SMD package
- ◇ RoHS compliant / Green EMC
- ◇ Matte Tin (Sn) Lead finish
- ◇ Cathode Band / Device marking
- ◇ Surface Mount Package Ideally Suited for Automatic Insertion
- ◇ For General Purpose Switching Applications
- ◇ High Conductance
- ◇ Device Marking Code

SOD-123



Maximum Ratings (Ta = 25 °C)

Symbol	Parameter	Value	Units
V_{RM}	Non-Repetitive Peak Reverse Voltage	100	V
V_{RRM}	Repetitive Peak Reverse Voltage	100	V
$V_{R(RMS)}$	RMS Reverse Voltage	75	V
I_{FM}	Forward Continuous Current	300	mA
I_O	Average Rectified Output Current	150	mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current (@t=1.0us)	2.0	A
P_D	Power Dissipation	350	mW
T_J	Junction Temperature	150	°C
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient*	357	°C/W
T_{STG}	Storage Temperature	-55 to +150	°C

*:Device mounted on 1"x1" FR4 PCB

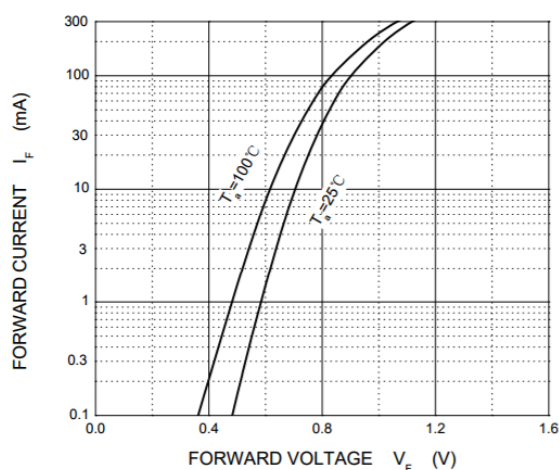
Electrical Characteristics (Ta = 25 °C)

Symbol	Parameter	Conditions	Min	Max	Units
V_F	Forward Voltage	$I_F = 1mA$		0.715	V
		$I_F = 10mA$		0.855	
		$I_F = 50mA$		1.0	
		$I_F = 150mA$		1.25	
I_R	Reverse current	$V_R = 75V$ (25°C)		1	μA
		$V_R = 20V$ (25°C)		25	nA
		$V_R = 75V$ (150°C)		50	μA
C_T	Capacitance	$V_R = 0V$, f = 1MHz		2	pF
t_{rr}	Reverse Recovery Time	$I_F = I_R = 10mA$, $I_{RR} = 1mA$, $R_L = 100 \Omega$		4	ns

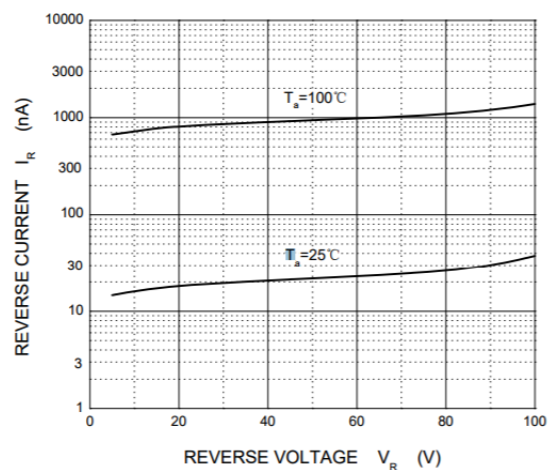
Ordering Information

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
1N4148W	SOD123	Tape & Reel 3000pcs /7" Reel	8 mm	4 mm	Conductive	

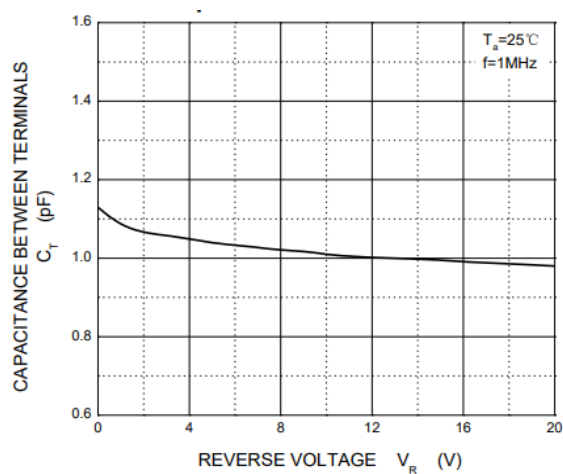
Characteristics Curves



Forward current(I_F) vs Forward voltage(V_F)



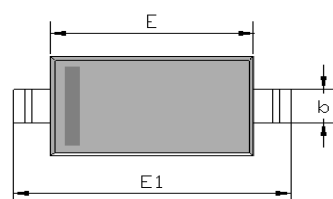
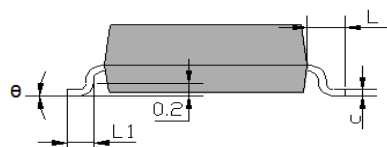
Reverse current(I_R) vs Reverse voltage(V_R)



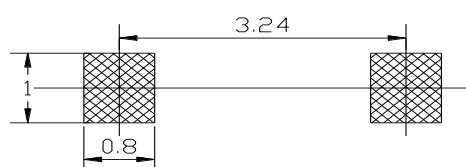
Capacitance Characteristics

Package Dimensions

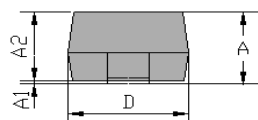
Package outline : SOD-123



SOD123 Package Outline



Land Pattern Recommendation



Unit	A	A1	A2	b	c	D	E	E1	L	L1	θ
Max.	1.25	0.10	1.15	0.65	0.15	1.70	2.80	3.85		0.45	8°
Min.	1.05	0.00	1.05	0.45	0.08	1.50	2.60	3.55	0.500 REF.	0.25	0°

Note:

1. Halogen free, EMC
2. Pb free solder
3. Lead thickness includes solder plating
4. Lead frame: A42
5. Other Tolerance: ± 0.05
6. Dimensions are exclusive of Burrs, Mold Flash and Tie Bar extrusions
7. Unit: mm