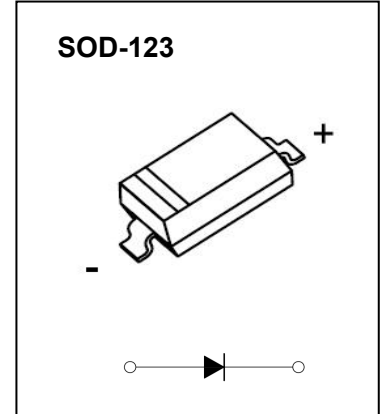


**FEATURES**

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance

**SOD-1 23 Plastic-Encapsulate Diodes**



**MARKING: T4**



**Maximum Ratings and Electrical Characteristics, Single Diode @T<sub>a</sub>=25°C**

Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Peak Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	100	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	71	V
Forward Continuous Current	I <sub>FM</sub>	300	mA
Average Rectified Output Current	I <sub>O</sub>	150	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I <sub>FSM</sub>	2.0	A
Power Dissipation	P <sub>d</sub>	350	mW
Thermal Resistance from Junction to Ambient(Note 1)	R <sub>θJA</sub>	250	°C/W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55~+150	°C

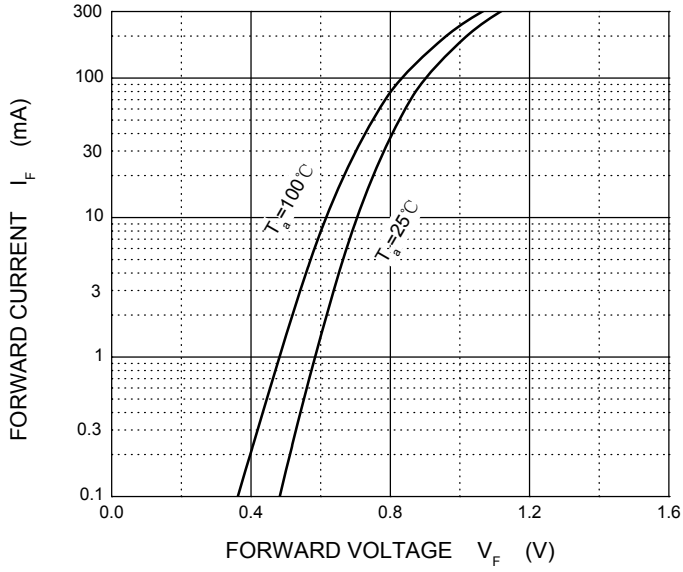
Note 1:Device mounted on 1"x1" FR4 PCB,1oz single-side copper.

**ELECTRICAL CHARACTERISTICS**
**Electrical Ratings @Ta=25°C**

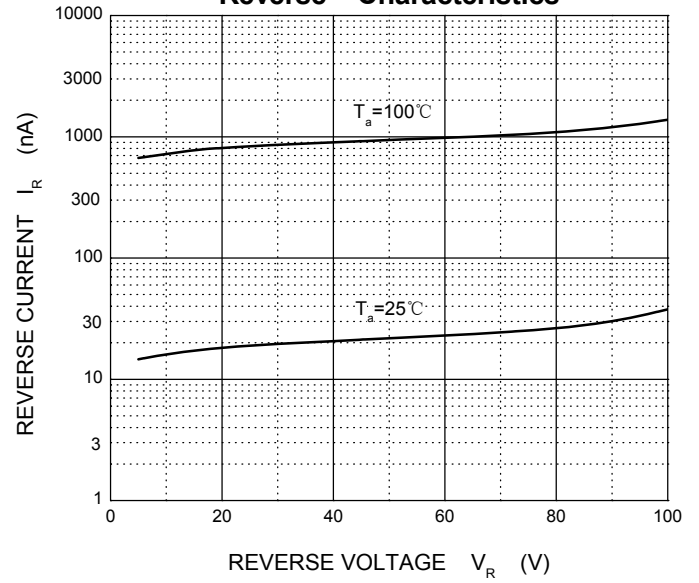
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
<b>Forward voltage</b>	$V_{F1}$			0.715	V	$I_F=1\text{mA}$
	$V_{F2}$			0.855	V	$I_F=10\text{mA}$
	$V_{F3}$			1.0	V	$I_F=50\text{mA}$
	$V_{F4}$			1.25	V	$I_F=150\text{mA}$
<b>Reverse current</b>	$I_{R1}$			1	$\mu\text{A}$	$V_R=75\text{V}$
	$I_{R2}$			25	nA	$V_R=20\text{V}$
<b>Capacitance between terminals</b>	$C_T$			2	pF	$V_R=0\text{V}, f=1\text{MHz}$
<b>Reverse recovery time</b>	$t_{rr}$			4	ns	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1I_R, R_L=100\Omega$

## Typical Characteristics

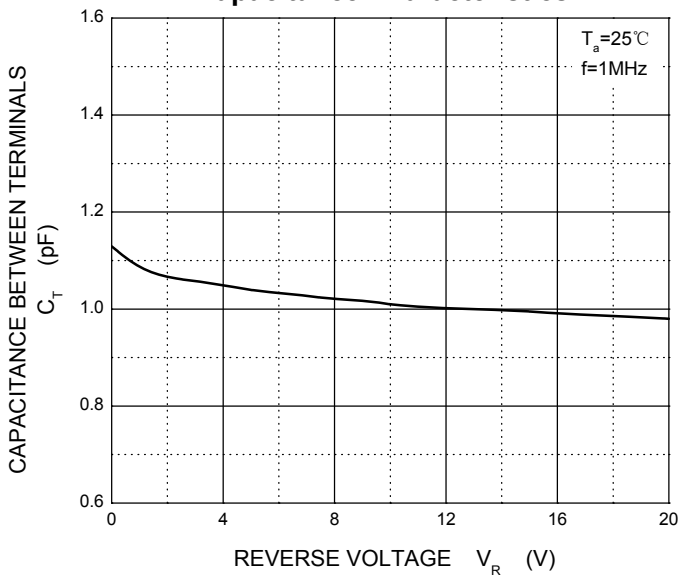
### Forward Characteristics



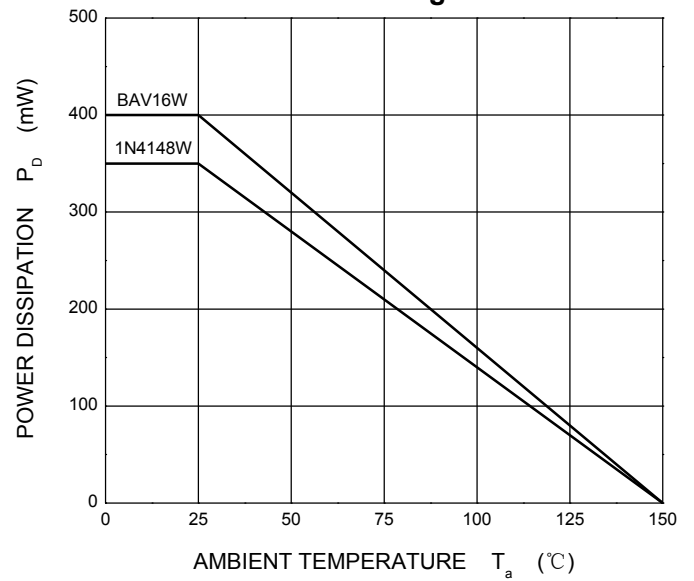
### Reverse Characteristics

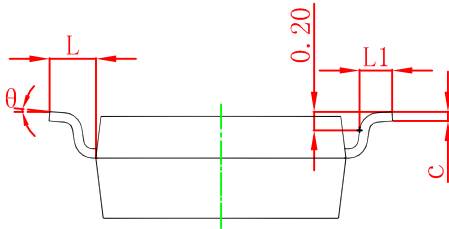
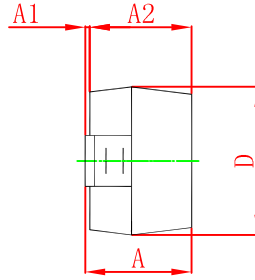
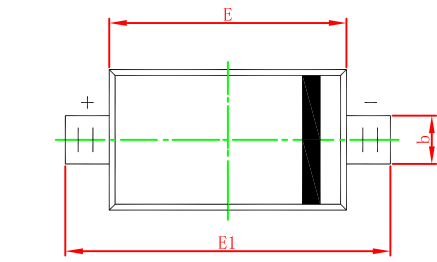


### Capacitance Characteristics



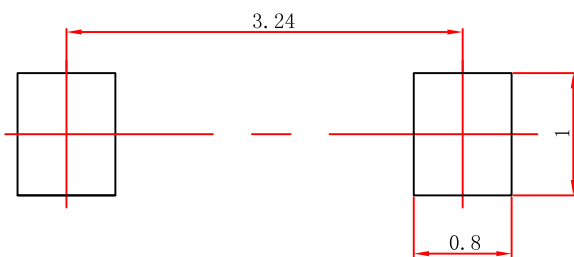
### Power Derating Curve





Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

### SOD-123 Suggested Pad Layout



- Note:**
1. Controlling dimension: in millimeters.
  2. General tolerance:  $\pm 0.05$ mm.
  3. The pad layout is for reference purposes only.