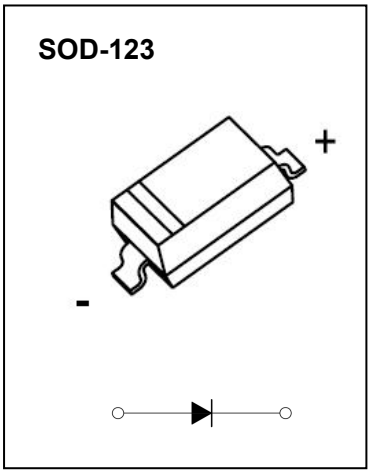
SOD-123 Plastic-Encapsulate Diodes
1N4148W / BAV16W

SOD-123



FEATURES

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

MARKING: T4,T6

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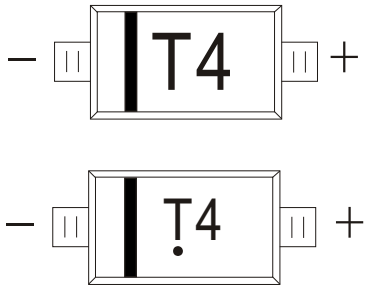	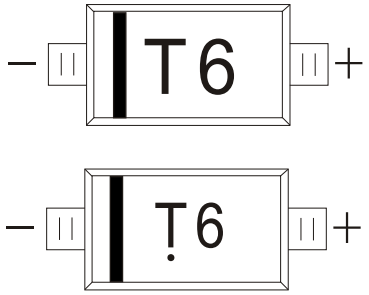

The marking bar indicates the cathode
Solid dot = Green molding compound device,if none,the normal device.

Maximum Ratings and Electrical Characteristics, Single Diode @T_a=25℃

Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage **Working Peak Reverse Voltage** **DC Blocking Voltage**	V_{RRM} V_{RWM} V_R	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	71	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.0	A
Power Dissipation **1N4148W** **BAV16W**	Pd	350 400	mW
Thermal Resistance from Junction to Ambient(Note 1)	$R_{\theta JA}$	250	℃/W
Junction Temperature	T_j	150	℃
Storage Temperature	T_{STG}	-55~+150	℃

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

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ELECTRICAL CHARACTERISTICS

Electrical Ratings @Ta=25℃

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

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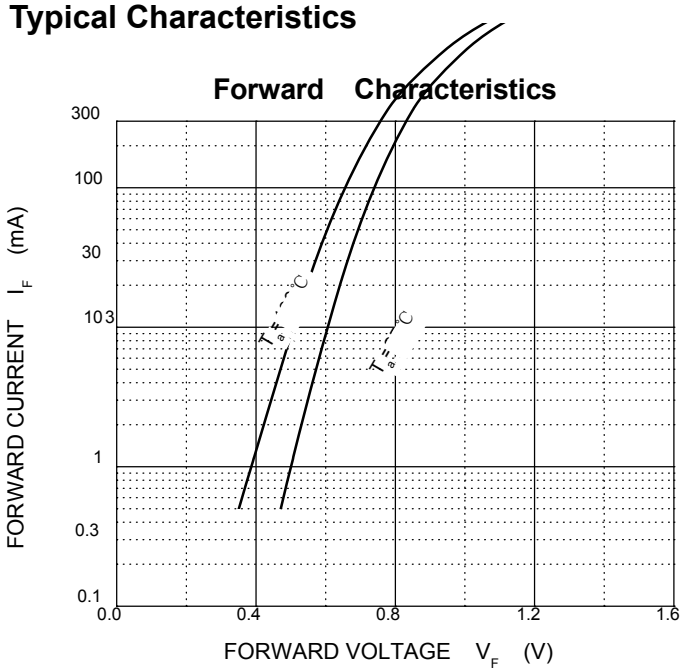
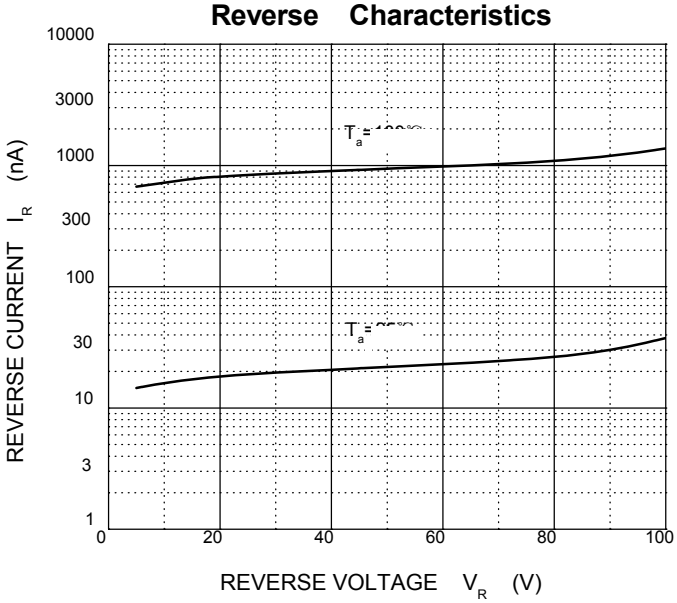
Typical Characteristics

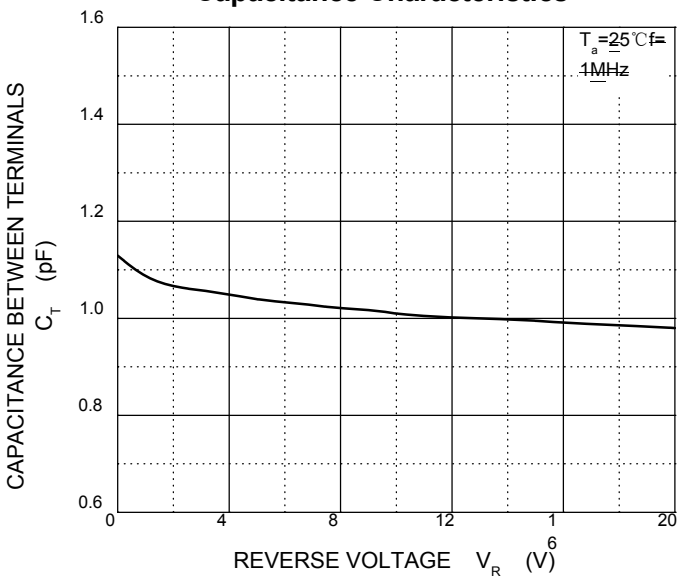
Forward Characteristics



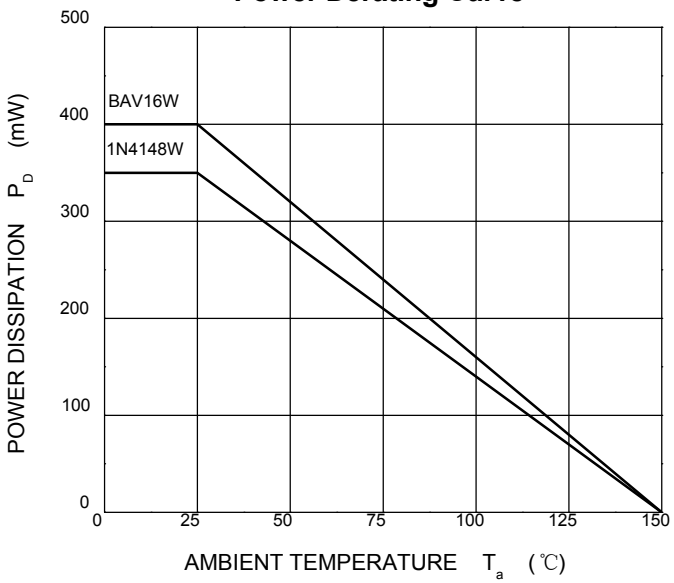
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve



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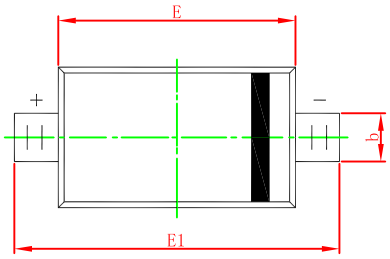
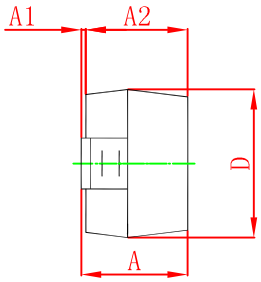
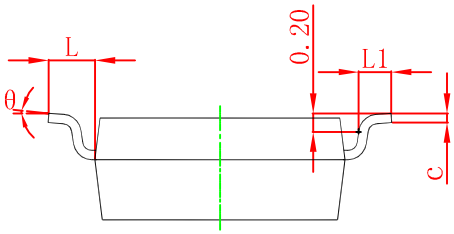
SOD-123 Package Outline Dimensions

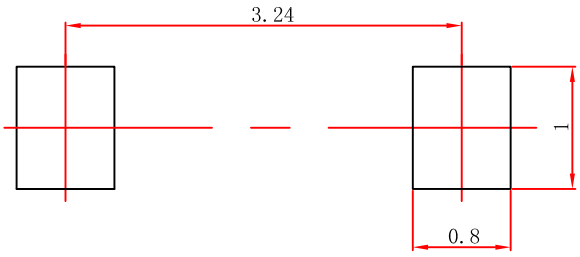






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 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:± 0.05mm.
3.The pad layout is for reference purposes only.