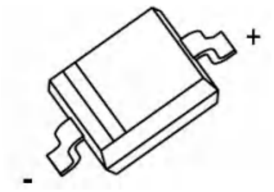
BAV19W~BAV21W SWITCHING DIODE

FEATURES

- Low Reverse Current
- Surface Mount Package Ideally Suited for Automatic Insertion
- Fast Switching Speed
- For General Purpose Switching Applications



SOD - 123

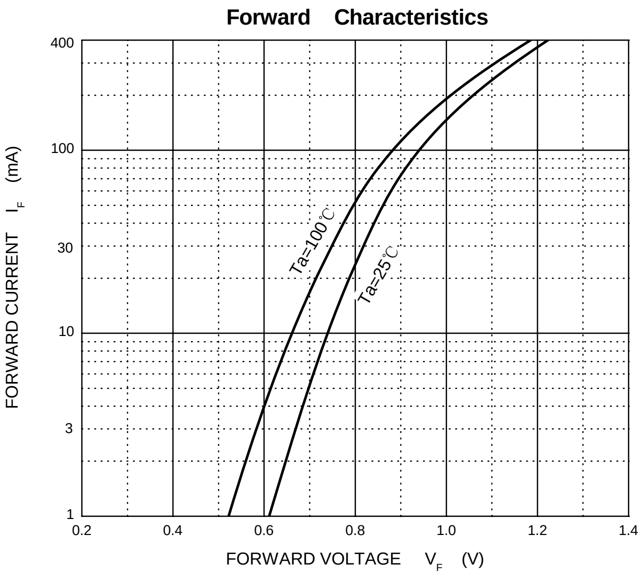
MARKING: BAV19W A8
BAV20W T2
BAV21W T3

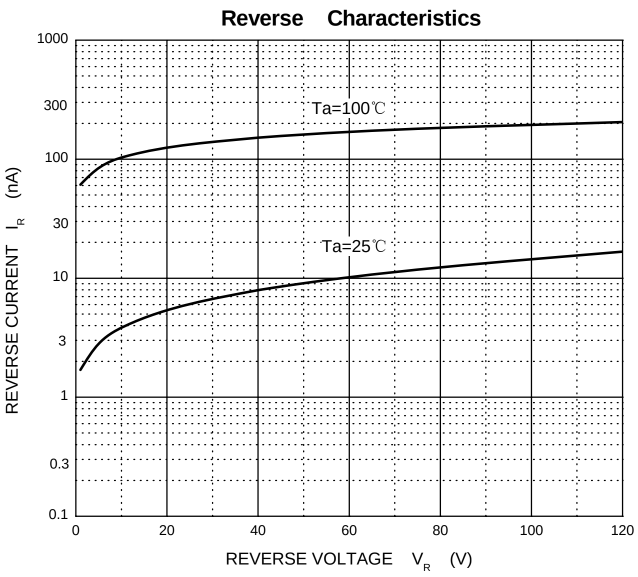
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

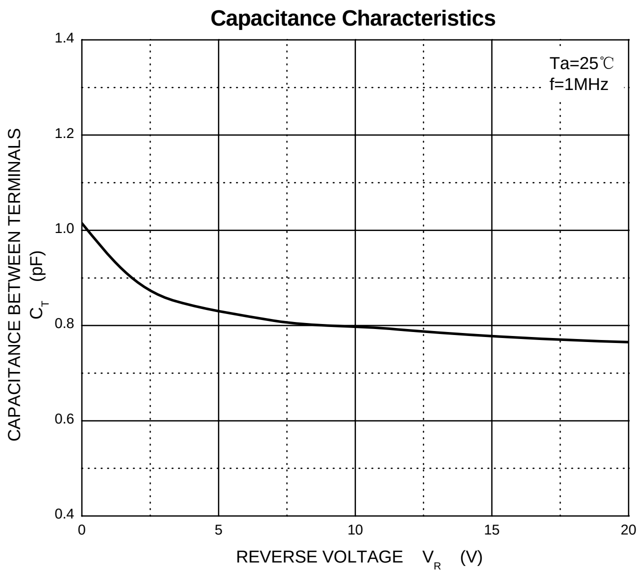
Symbol	Parameter	Value			Unit
		BAV19W	BAV20W	BAV21W	
V_{RM}	Non-Repetitive Peak Reverse Voltage	120	200	250	V
V_{RRM}	Peak Repetitive Reverse Voltage	100	150	200	V
V_{RWM}	Working Peak Reverse Voltage				
$V_{R(RMS)}$	RMS Reverse Voltage	71	106	141	V
I_O	Average Rectified Output Current	200			mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @ t=8.3ms	2.0			A
P_D	Power Dissipation	250			mW
$R_{\Theta JA}$	Thermal Resistance from Junction to Ambient	500			℃/W
T_j	Junction Temperature	150			℃
T_{stg}	Storage Temperature	-55~+150			℃

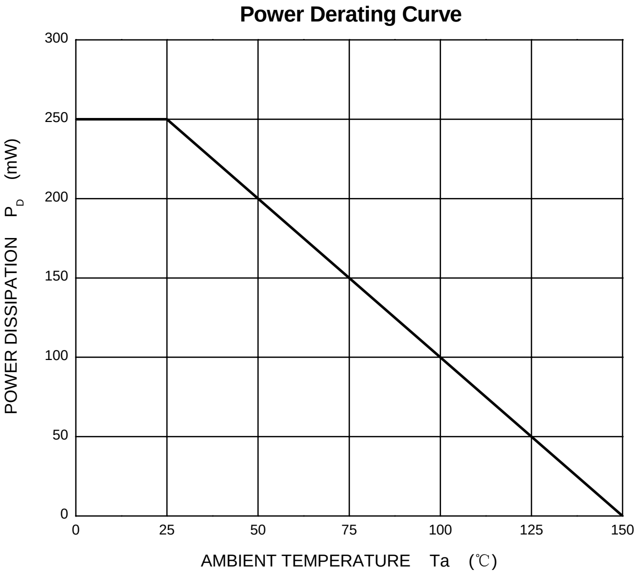
ELECTRICAL CHARACTERISTICS(T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Reverse current	I_R	V_R=100V	BAV19W			0.1	uA
		V_R=150V	BAV20W			0.1	
		V_R=200V	BAV21W			0.1	
Forward voltage	V_F	I_F=100mA				1	V
		I_F=200mA				1.25	
Total capacitance	C_{tot}	V_R=0V,f=1MHz				5	pF
Reverse recovery time	t_{rr}	I_F= I_R =30mA, I_{rr}=0.1*I_R , R_L=100Ω				50	ns


Forward Characteristics
FORWARD CURRENT I_F (mA)
400
100
30
10
3
1
0.2
0.4
0.6
0.8
1.0
1.2
1.4
Ta=100℃
Ta=25℃
FORWARD VOLTAGE V_F (V)

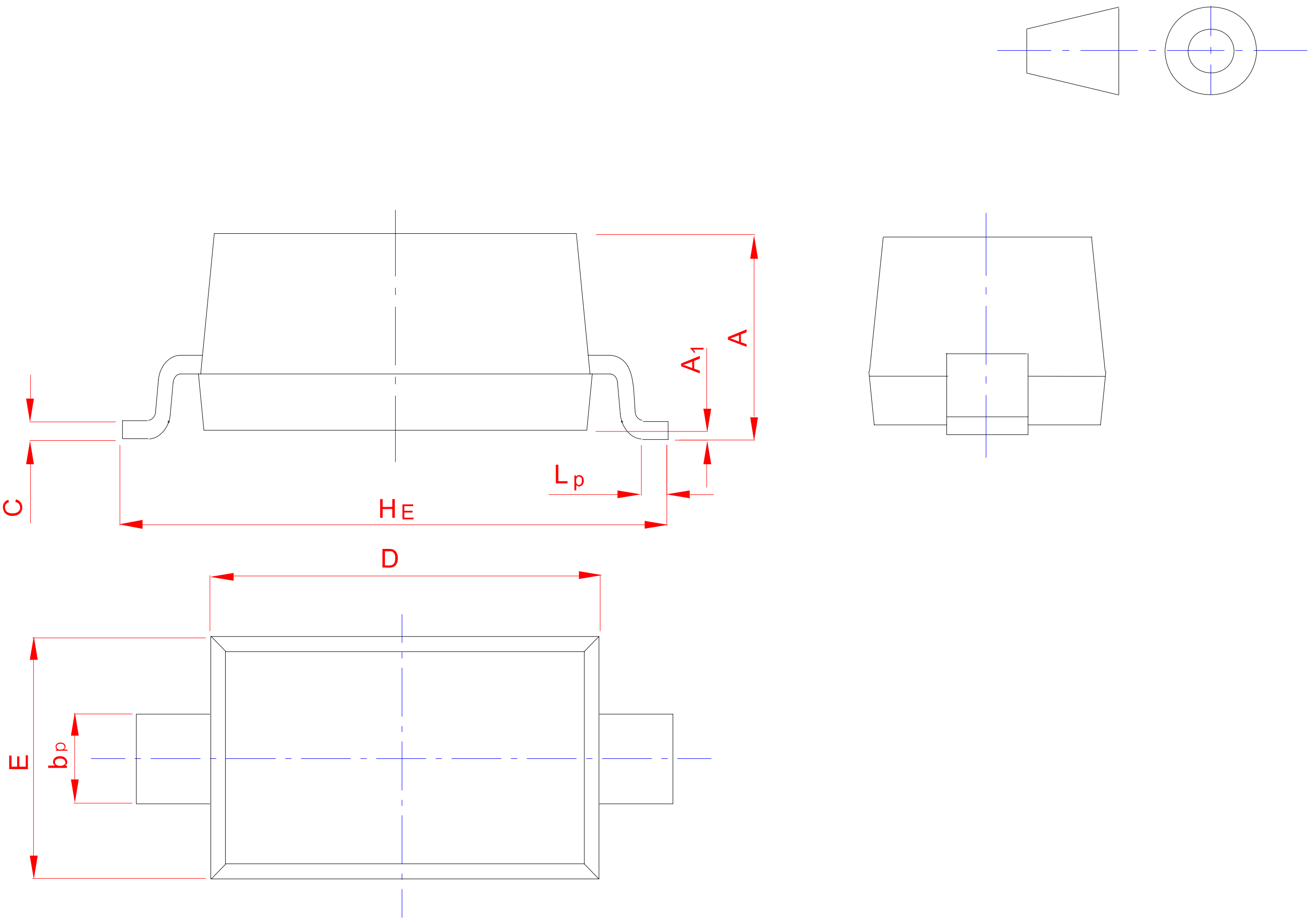

Reverse Characteristics
REVERSE CURRENT I_R (nA)
1000
300
100
30
10
3
1
0.3
0.1
0
20
40
60
80
100
120
Ta=100℃
Ta=25℃
REVERSE VOLTAGE V_R (V)


Capacitance Characteristics
CAPACITANCE BETWEEN TERMINALS C_T (pF)
1.4
1.2
1.0
0.8
0.6
0.4
0
5
10
15
20
Ta=25℃
f=1MHz
REVERSE VOLTAGE V_R (V)


Power Derating Curve
POWER DISSIPATION P_D (mW)
300
250
200
150
100
50
0
0
25
50
75
100
125
150
AMBIENT TEMPERATURE Ta (℃)

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-123**



UNIT	A	b_p	C	**D**	E	H_E	A_1	L_p
mm	1.20 0.90	0.60 0.50	0.135 0.100	2.75 2.55	1.65 1.55	3.85 3.55	0.10 0.01	0.50 0.20