



### Features

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



SOD-123



### Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BAV19WS	SOD-123	A8	3000
BAV20WS	SOD-123	T2	3000
BAV21WS	SOD-123	T3	3000

### Maxmim Ratings (Ta=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	500			mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	250			°C/W
$T_j$	Junction Temperature	150			°C
$T_{stg}$	Storage Temperature	-55~+150			°C

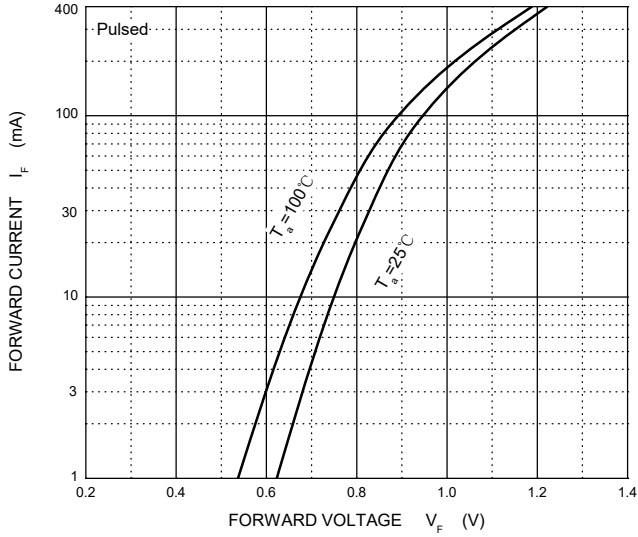
### Electrcal Charcteristics (Ta=25 unless otherwise specified)

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	$t_{rr}$	$I_F=I_R=30mA, I_{rr}=0.1*I_R, R_L=100\Omega$			50	ns

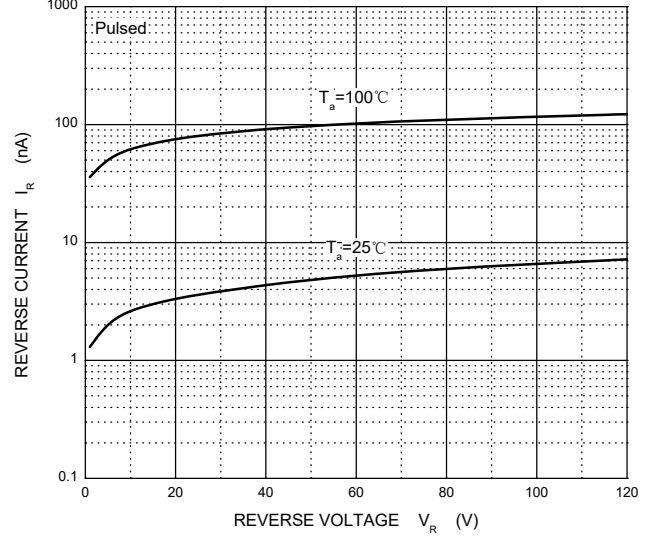


## Typical Characteristics

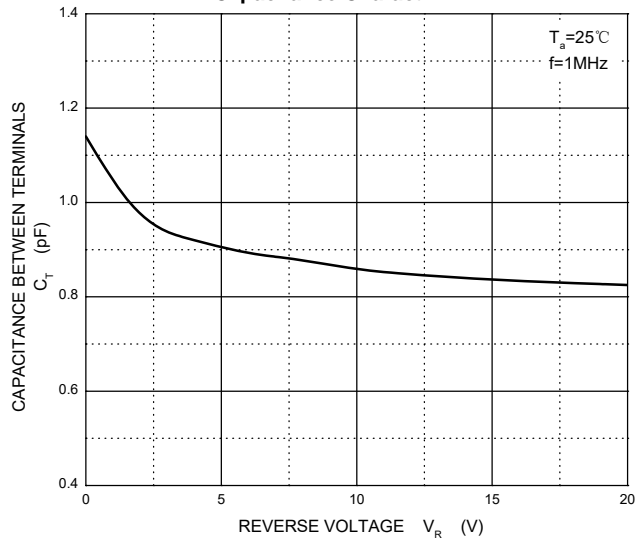
### Forward Characteristics



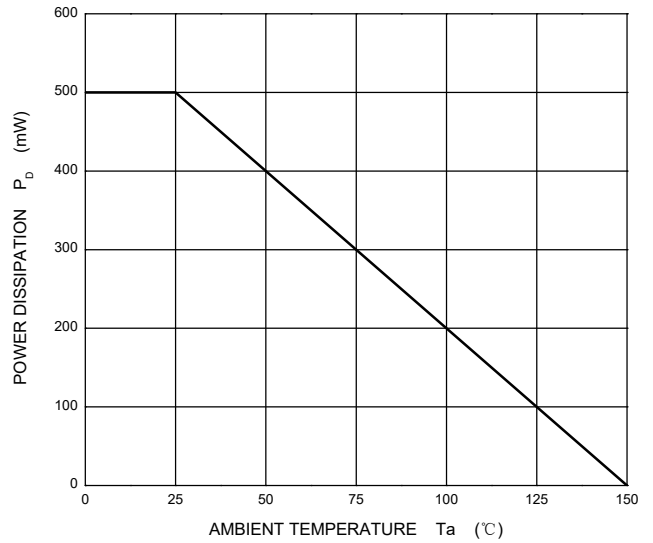
### Reverse Characteristics



### Capacitance Characteristics

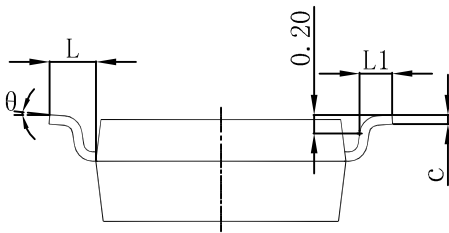
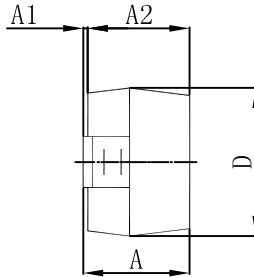
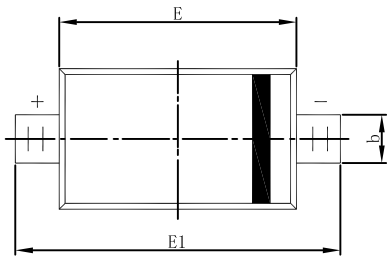


### Power Derating Curve

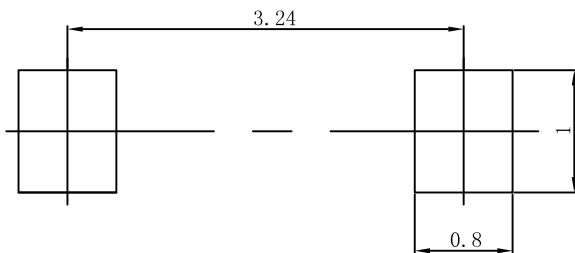




### SOD-123 Package Outline Dimensions



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°



**Note:**

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



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