



SOD-123 Plastic-Encapsulate Diodes

BAV19W~BAV21W SWITCHING DIODE

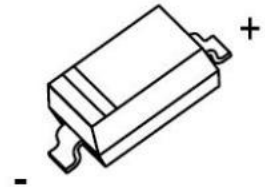
FEATURES

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

MARKING:

BAV19W A8	BAV20W T2	BAV21W T3

SOD-123



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

MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ 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 @ $t=8.3\text{ms}$	2.0			A
P_D	Power Dissipation	500			mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	250			$^{\circ}\text{C}/\text{W}$
T_j	Junction Temperature	150			$^{\circ}\text{C}$
T_{stg}	Storage Temperature	$-55\sim+150$			$^{\circ}\text{C}$

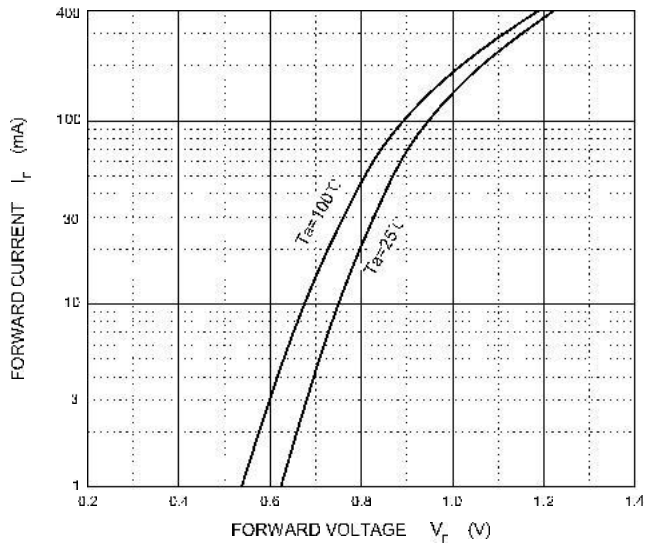
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

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

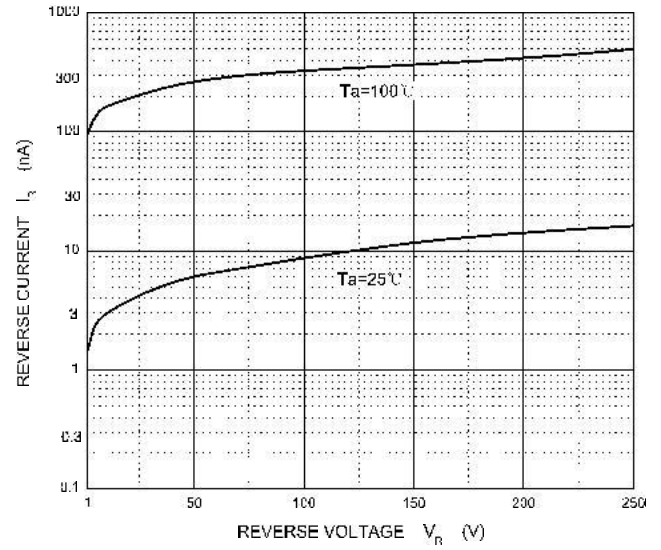


BAV21W Typical Characteristics

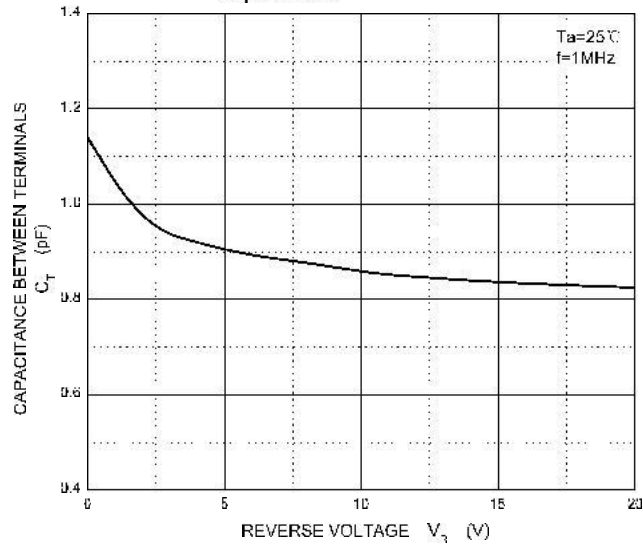
Forward Characteristics



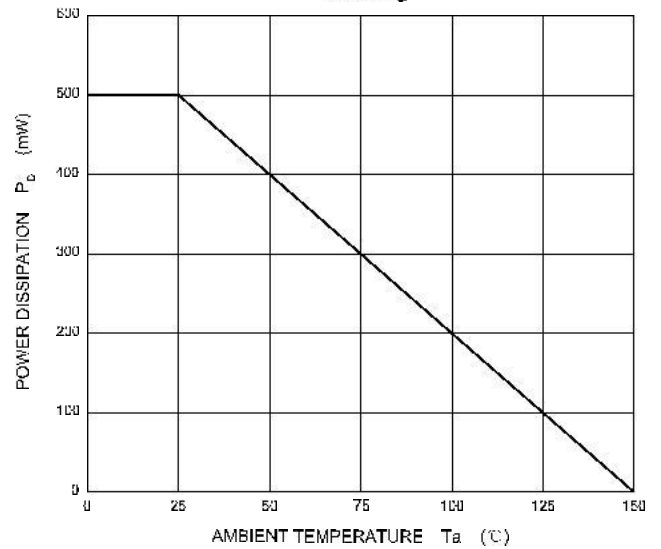
Reverse Characteristics



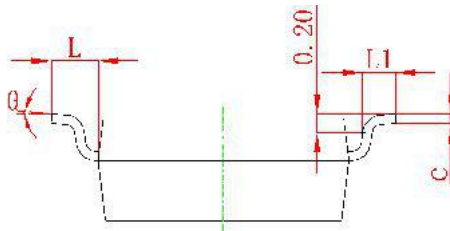
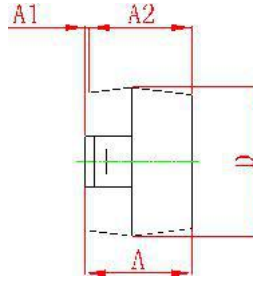
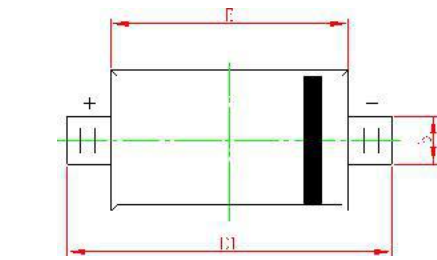
Capacitance Characteristics



Power Derating Curve

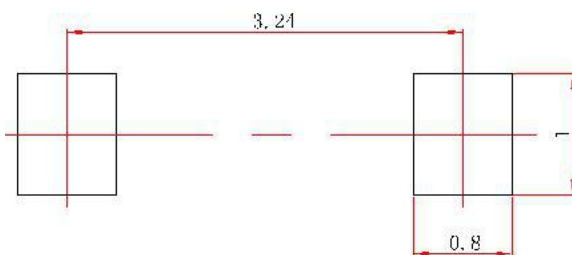


SOD-123 Package Outline Dimensions



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°

SOD-123 Suggested Pad Layout



Note:

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

NOTICE

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