

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 ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

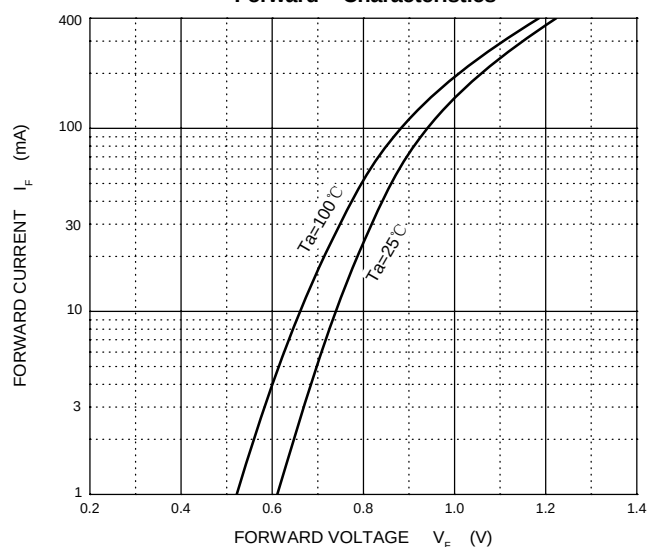
Symbol	Parameter	Value			Unit
		BAV19W	BAV20W	BAV21W	
V_{RM}	Non-Repetitive Peak Reverse Voltage	120	200	250	V
V_{RRM}	Peak Repetitive Reverse Voltage	100	150	200	V
V_{RWM}	Working Peak Reverse Voltage				
$V_{R(RMS)}$	RMS Reverse Voltage	71	106	141	V
I_O	Average Rectified Output Current	200			mA
I_{FSM}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

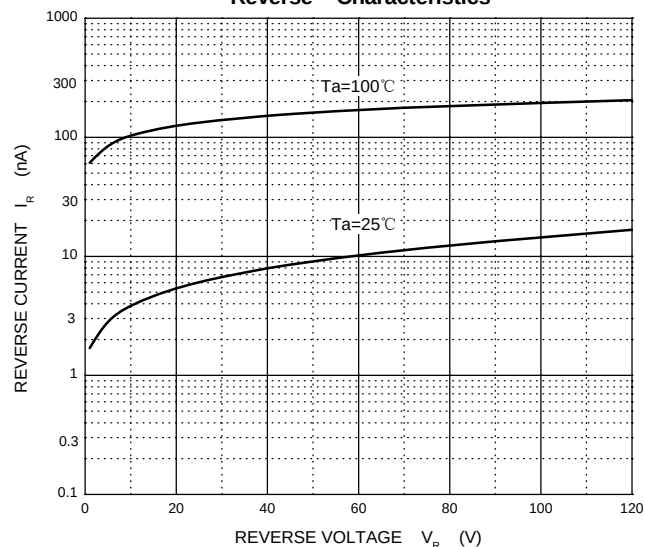
Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Reverse current	I_R	$V_R=100\text{V}$	BAV19W			0.1	μA
		$V_R=150\text{V}$	BAV20W			0.1	
		$V_R=200\text{V}$	BAV21W			0.1	
Forward voltage	V_F	$I_F=100\text{mA}$				1	V
		$I_F=200\text{mA}$				1.25	
Total capacitance	C_{tot}	$V_R=0\text{V}, f=1\text{MHz}$				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

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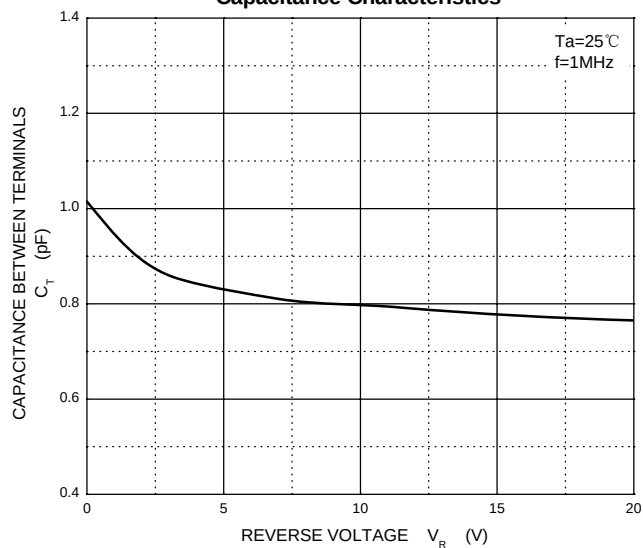
Forward Characteristics



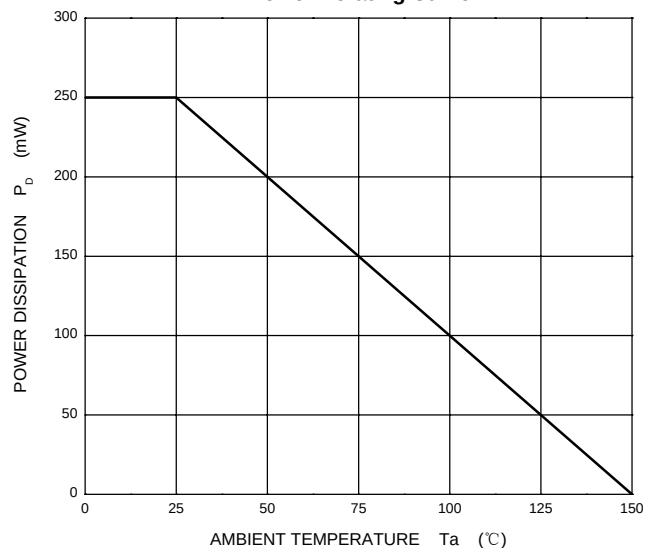
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve

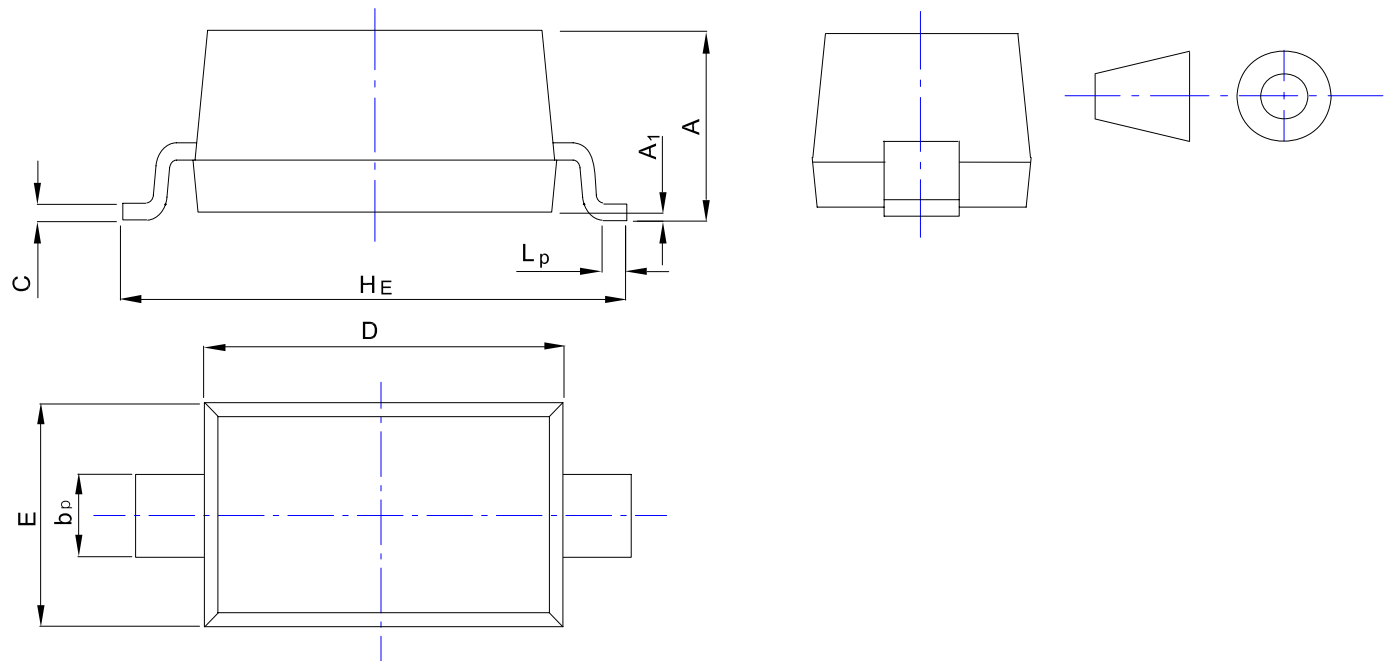


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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	bp	C	D	E	HE	A1	Lp
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

Pad Layout Unit: inch(mm)

