

BAV19W THRU BAV21W

HIGH SPEED SWITCHING RECTIFIERS



VOLTAGE 120~250 Volts CURRENT 200 mAmp SOD-123

FEATURES

- Fast Switching Speed(TRR<50nS)
- Power Dissipation of 500mW
- High Stability and High Reliability
- Low reverse leakage

MECHANICAL DATA

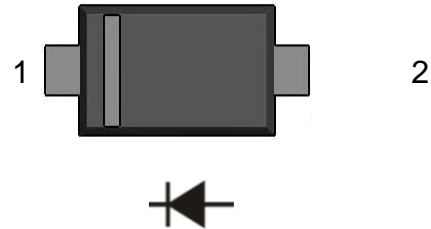
- Case: Bend lead SOD-123 package
- Polarity: Color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting Position: Any

MARK

TYPE NO.	MARK
BAV19W	A8
BAV20W	T2
BAV21W	T3

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



ABSOLUTE MAXIMUM RATINGS($T_A=25^{\circ}\text{C}$ AMBIENT UNLESS OTHERWISE SPECIFIED)

Parameter	Symbol	VALUE	Unit
Power dissipation	P_D	500	mW
Average rectified output current	$I_{F(AV)}$	200	mA
Non-repetitive peak forward current	I_{FM}	400	mA
Peak forward surge current @ $t=1\mu\text{s}$	I_{FSM}	2.5	A
Power dissipation	P_D	500	mW
Operating Junction Temperature Range	T_J	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STD}	-55 to +150	$^{\circ}\text{C}$

MAXIMUM RATINGS CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ AMBIENT UNLESS OTHERWISE SPECIFIED)

Parameter	Symbol	TEST CONDITION	LIMITS			Unit
			Min.	Typ.	Max.	
Breakdown Voltage	B_V	$I_R=100\mu\text{A}$	120	--	--	V
			200	--	--	
			250	--	--	
Reverse leakage current	I_R	$V_R=100\text{V}$	--	--	100	nA
		$V_R=150\text{V}$	--	--		
		$V_R=200\text{V}$	--	--		
Forward voltage	V_{F1} V_{F2}	$I_F=100\text{mA}$	--	--	1	V
		$I_F=200\text{mA}$	--	--	1.25	
Reverse recovery time	T_{rr}	$I_F=I_R=30\text{mA}$ $R_L=100\Omega$ $I_{RR}=3\text{mA}$	--	--	50	ns
Junction capacitance	C_J	$V_R=0\text{V}$, $f=1\text{MHZ}$	--	--	5	pF

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RATING AND CHARACTERISTIC CURVES

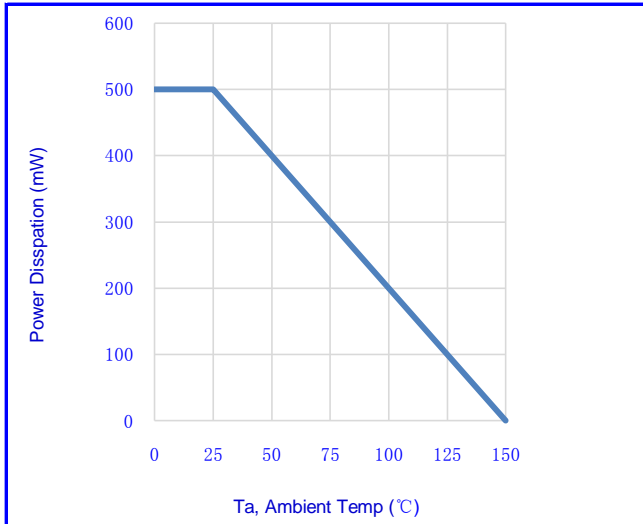


Fig.1-POWER DRATING CURVE

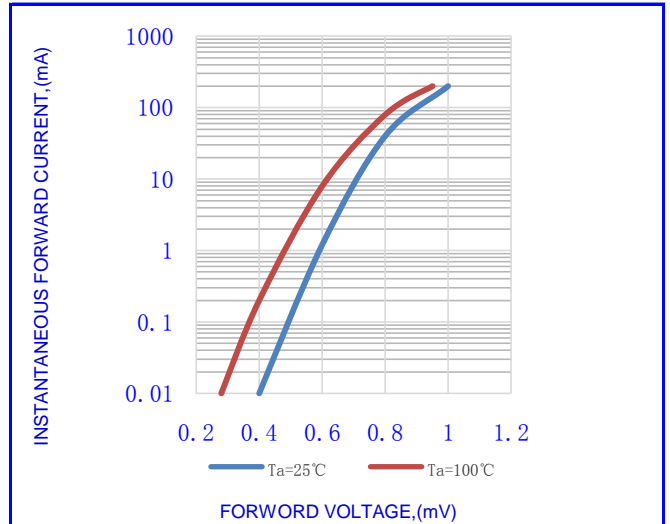


Fig.2- TYPICAL INSTANTANEOUS FORWARD

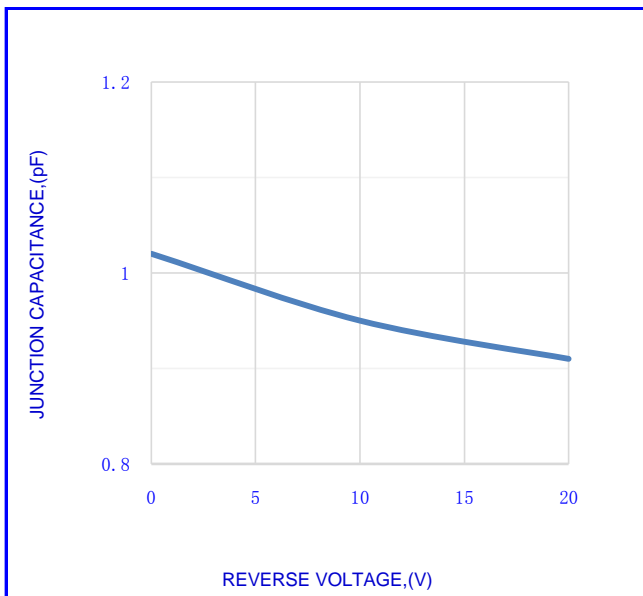


Fig.3- TYPICAL JUNCTION CAPACITANCE

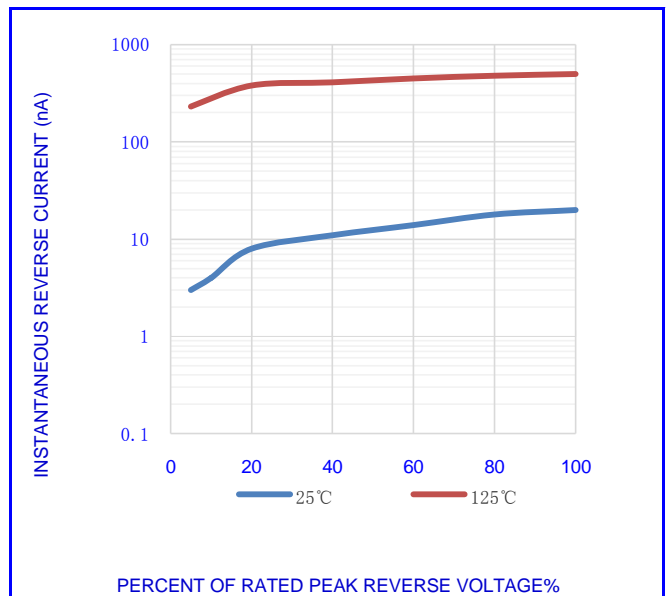
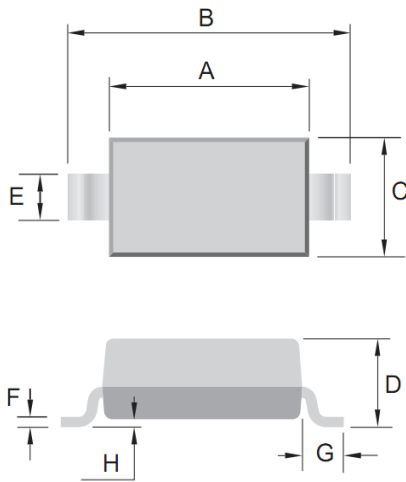


Fig.4- TYPICAL REVERSE CHARACTERISTICS

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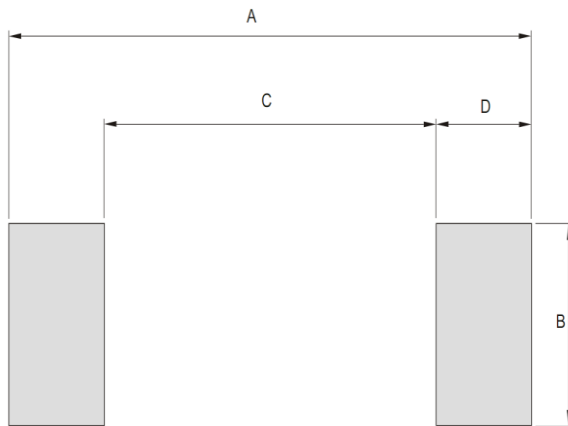
OUTLINE DRAWINGS



OUTLINE DIMENSIONS						
DIM	MILLIMETERS			INCHES		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	2.500	-	2.800	0.106	-	0.115
B	3.600	-	3.900	0.137	-	0.145
C	1.400	-	1.800	0.067	-	0.075
D	0.950	-	1.350	0.037	-	0.053
E	0.500	-	0.700	0.035	-	0.043
F	-	-	0.200	-	-	0.008
G	0.400	-	-	0.016	-	-
H	-	-	0.120	-	-	0.005

SOD-123

MOUNTING PAD LAYOUT



OUTLINE DIMENSIONS						
DIM	MILLIMETERS			INCHES		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	--	4.250	--	--	0.167	--
B	--	1.220	--	--	0.048	--
C	--	2.700	--	--	0.106	--
D	--	0.780	--	--	0.031	--

Packing Information

Product code	Pack	Reel Size (mm)	Quantity (pcs/reel)	Inner Box Size LxWxH(mm)	Carton Size LxWxH(mm)	Quantity (Inner)
SOD-123	T/R	Φ180	3000	210x208x203	440x440x230	4