

Plastic-Encapsulate Diodes Switching Diodes



SOD-323

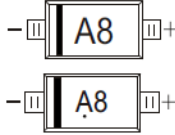
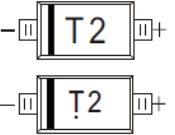
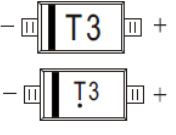
Features

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

Ordering Information

Part No.	Package	Packing
BAV19WS-BAV21WS	SOD-323	3000 / Tape & Reel

Marking:

BAV19WS	BAV20WS	BAV21WS
A8	T2	T3
		

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)

Parameter	Symbol	Value			Unit
		BAV19WS	BAV20WS	BAV21WS	
Non-Repetitive Peak Reverse Voltage	V_{RM}	120	200	250	V
Peak Repetitive Reverse Voltage	V_{RRM}	100	150	200	V
Working Peak Reverse Voltage	V_{RWM}				
RMS Reverse Voltage	$V_{R(RMS)}$	71	106	141	V
Average Rectified Output Current	I_O	200			mA
Non-repetitive Peak Forward Surge Current @ t=1.0ms @ t=1s	I_{FSM}	2.5 0.5			A
Repetitive Peak Forward Surge Current		625			mA
Power Dissipation	P_D	200			mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625			°C/W
Junction Temperature	T_J	-55~+150			°C
Storage Temperature	T_{STG}	-55~+150			°C

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse Current	$V_R=100\text{V}$ BAV19WS	I_R	—	—	0.1	μA
	$V_R=150\text{V}$ BAV20WS		—	—	0.1	
	$V_R=200\text{V}$ BAV21WS		—	—	0.1	
Forward Voltage	$I_F=100\text{mA}$	V_F	—	—	1.0	V
	$I_F=200\text{mA}$		—	—	1.25	
Total Capacitance	$V_R=0$, $f=1\text{MHz}$	C_T	—	—	5	pF
Reverse Recovery Time	$I_F=I_R=30\text{mA}$, $I_{rr}=0.1 \cdot I_R$, $R_L=100\Omega$	t_{rr}	—	—	50	ns

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Rating and Characteristics Curves

Fig 1 Forward Characteristics

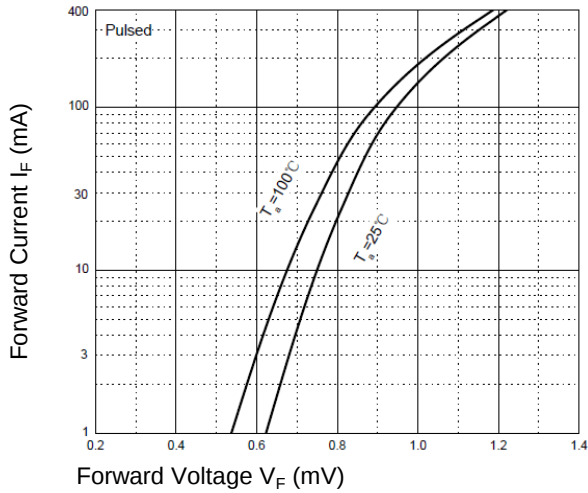


Fig 2 Reverse Characteristics

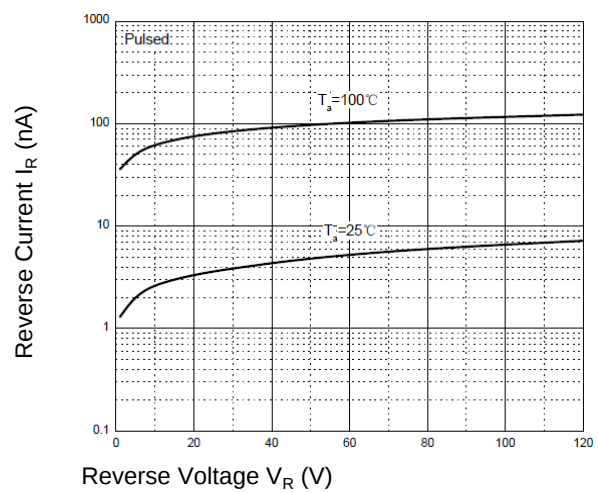


Fig 3 Capacitance Characteristics

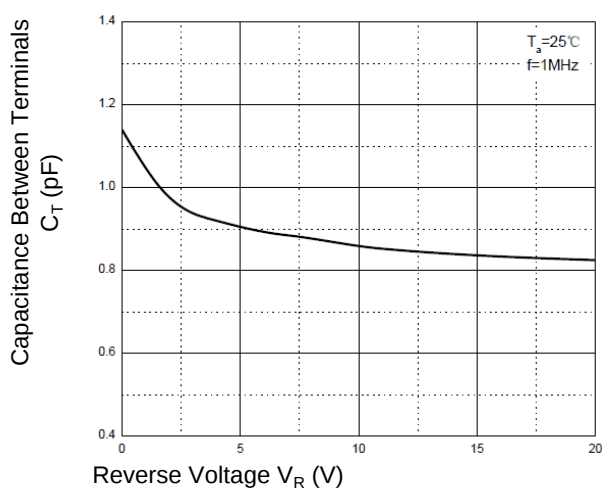


Fig 4 Power Derating Curve

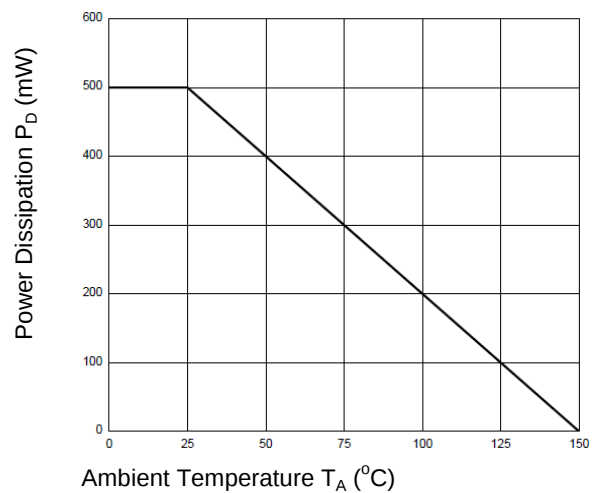


Fig 5 Forward Characteristics

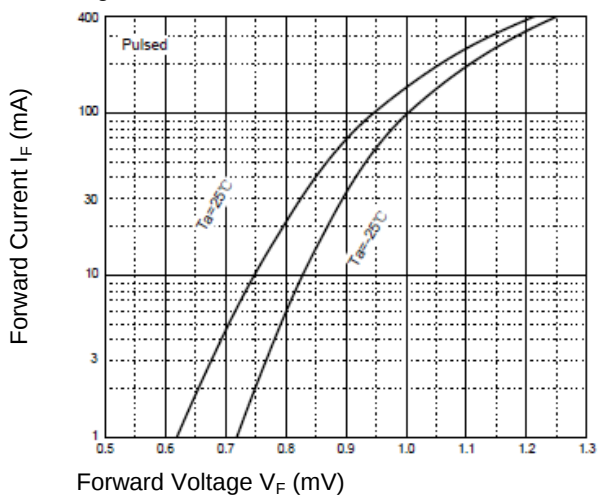
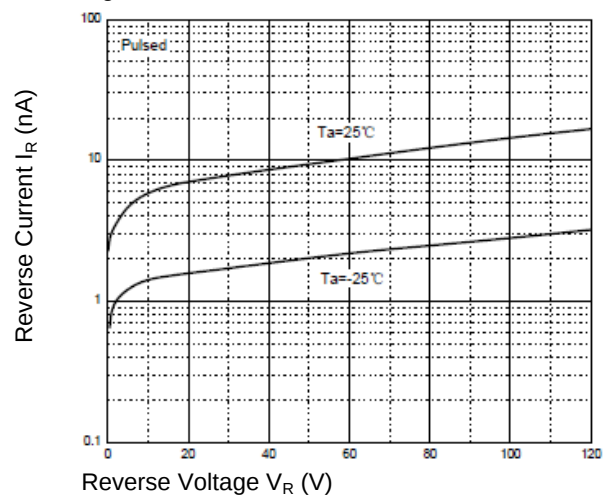
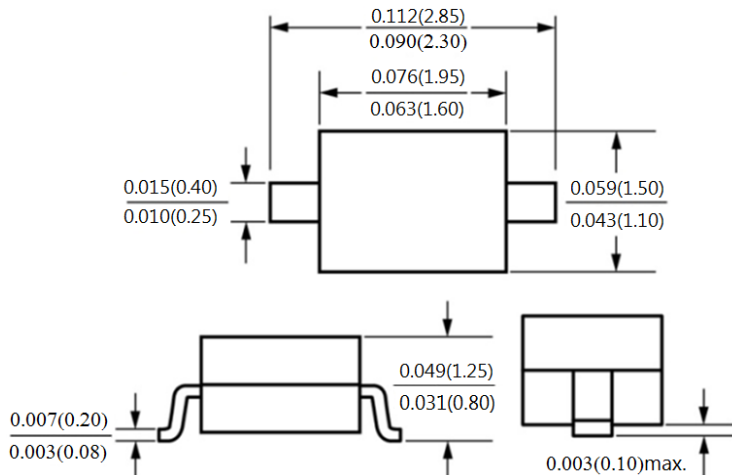


Fig 6 Reverse Characteristics



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Package Outline Dimensions

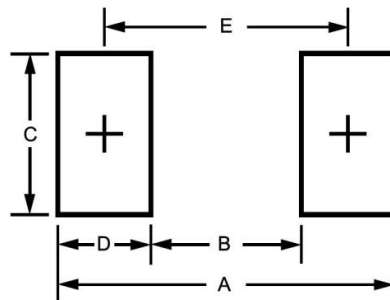


SOD-323

Dimensions in inches and (millimeters)

Suggested Pad Layout

Outline Symbol	SOD-323 millimeters
A	3.75
B	1.05
C	0.90
D	0.80
E	2.40



Tape & Reel Specification

Item	Symbol	Dimension millimeters
Carrier width	A	1.4 ±0.10
Carrier length	B	2.8 ±0.10
Carrier depth	C	1.0 ±0.10
Sprocket hole	d	1.55 ±0.10
Reel outside diameter	D	180 +0/-3
Reel inner diameter	D1	60 +1/-0
Feed hole width	D2	13.0 ±0.20
Sprocket hole position	E	1.75 ±0.10
Punch hole position	F	3.50 ±0.05
Punch hole pitch	P	4.00 ±0.10
Sprocket hole pitch	P0	4.00 ±0.10
Embossment center	P1	2.00 ±0.05
Overall tape thickness	T	0.6 Max
Tape width	W	8.0 ±0.20
Reel width	W1	9.0 ±0.20

