OM SENI

BAV19WS THRU BAV21WS

FAST SWITHING DIODES

SOD-323 Fast Swithing Diodes

Reverse Voltage
120 V/200V/250V
Forward Current
0.2 Ampere



Features

- $I_{F(AV)}$=200mA
- Power Dissipation of 250mW
- Fast switching speed
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Applications

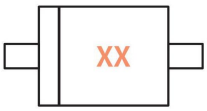
For use in low voltage high frequency circuit signals.

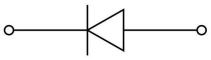
Mechanical Data

- Case: SOD-323
  Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Cathode line denotes the cathode end

Function Diagram

Marking:
BAV19WS:A8
BAV20WS:T2
BAV21WS:T3





Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	BAV19WS	BAV20WS	BAV21WS
Maximum repetitive peak reverse voltage	V_{RRM}	V	120	200	250
Maximum RMS Voltage	V_{RMS}	V	100	150	200
Reverse Breakdown voltage @I_R=100μA	$V_{(BR)R}$	V	120	200	250
Maximum Average Forward Rectified Current	$I_{F(AV)}$	mA	200		
Repetitive peak forward current	I_{FRM}	mA	625		
Non-Repetitive Peak forward surge current @t_p=1.0μs	I_{FSM}	A	2.5		
Non-Repetitive Peak forward surge current @t_p=1.0s			0.5		
Power Dissipation	P_d	mW	250		
Storage temperature	T_{stg}	°C	-55 ~+150		
Junction temperature	T_j	°C	-55 ~+150		
Typical thermal resistance	$R_{\theta J-A}$	°C /W	500		

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Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	BAV19WS	BAV20WS	BAV21WS
Maximum instantaneous forward voltage	I_F=100mA	V_F	V	1.0		
	I_F=200mA			1.25		
Reverse Leakage Current	V_R=V_{RMS}	I_R	nA	100		
Total capacitance	V_R=0V,f=1MHz	C_T	pF	5.0		
Maxinum reverse recovery time	I_F=I_R=30mA,I_{rr}=0.1×I_R, R_L=100Ω	T_{rr}	ns	50		

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

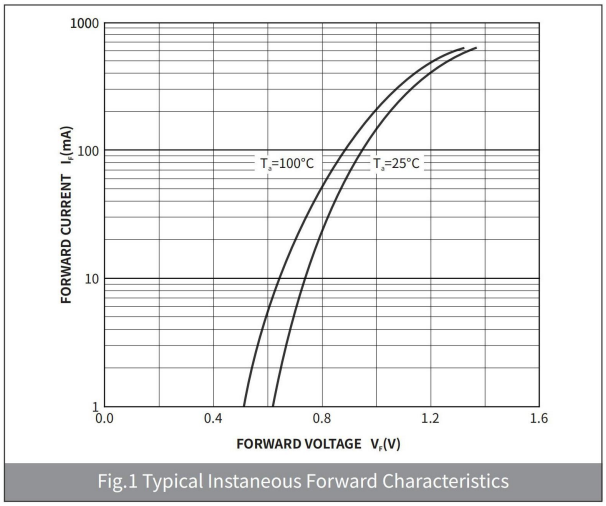


Fig.1 Typical Instaneous Forward Characteristics

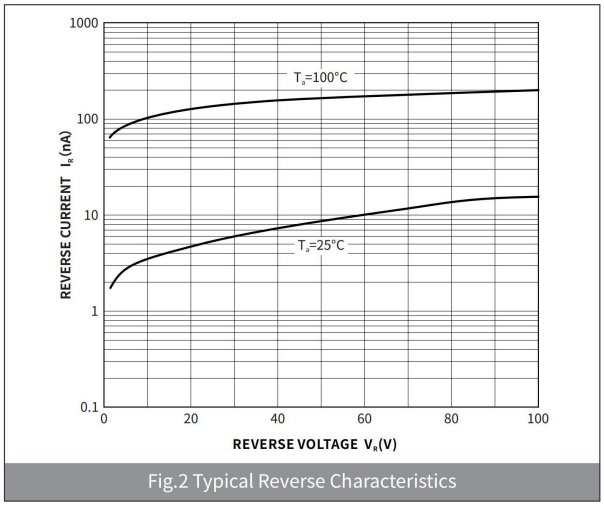


Fig.2 Typical Reverse Characteristics

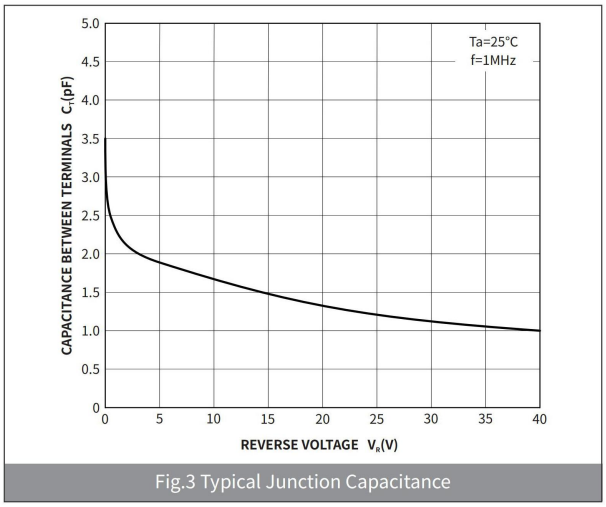


Fig.3 Typical Junction Capacitance

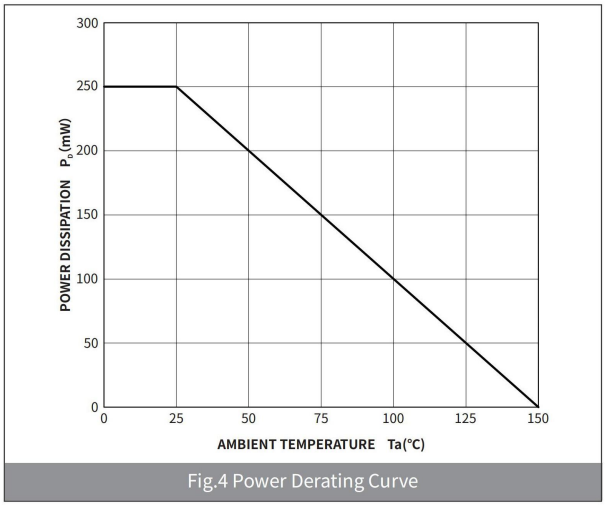


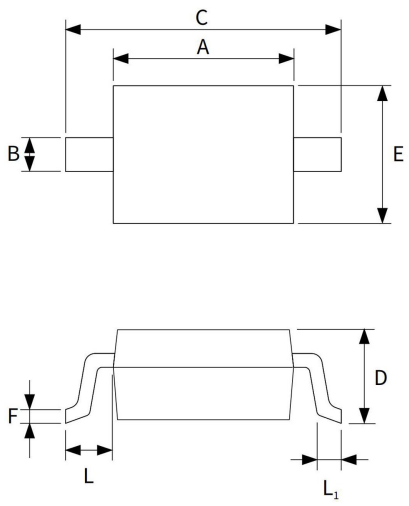
Fig.4 Power Derating Curve

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Ordering Information

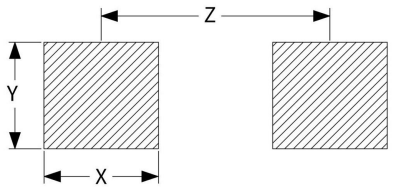
PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-323	R1	0.0048	3000	30000	240000	7''

Package Outline Dimensions (SOD-323)



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.60	1.80	0.063	0.071
B	0.25	0.40	0.010	0.016
C	2.30	2.80	0.091	0.110
D	0.80	1.10	0.031	0.043
D_1	0.80	0.90	0.031	0.035
E	1.20	1.40	0.047	0.055
F	0.08	0.18	0.003	0.007
L	0.475REF		0.019REF	
L_1	0.25	0.40	0.010	0.016
H	-	0.14	-	0.006

Suggested Pad Layout



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
X	0.65	0.75	0.026	0.030
Y	0.65	0.75	0.026	0.030
Z	2.10	2.20	0.084	0.088