OM SENI

BAV19W THRU BAV21W

FAST SWITHING DIODES

SOD-123 Fast Swithing Diodes

Features

- $I_{F(AV)}$=250mA
- Power Dissipation of 250mW
- Fast switching speed
- High Conductance

Applications

For use in low voltage high frequency circuit signals.

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

Mechanical Data

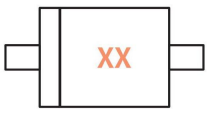
- Case: SOD-123
  Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Cathode line denotes the cathode end

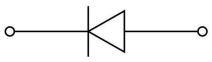


SOD-123

Function Diagram

Marking:
BAV19W:A8
BAV20W:T2
BAV21W:T3





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

PARAMETER	SYMBOL	UNIT	BAV19W	BAV20W	BAV21W
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	250		
Repetitive peak forward current	I_{FRM}	A	1		
Non-Repetitive Peak forward surge current @t_p=1.0ms	I_{FSM}	A	3		
Non-Repetitive Peak forward surge current @t_p=1.0μs			9		
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	BAV19W	BAV20W	BAV21W
Maximum instantaneous forward voltage	I_F=200mA	V_F	V	1.25		
Reverse Leakage Current	V_R=V_{RMS}	I_R	nA	100		
Total capacitance	V_R=4V,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)

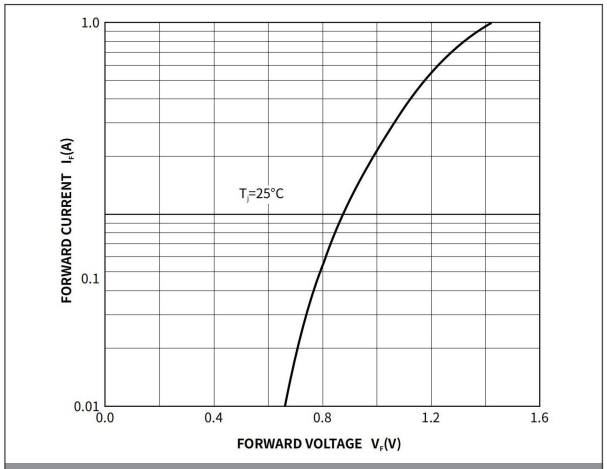


Fig.1 Typical Instaneous Forward Characteristics

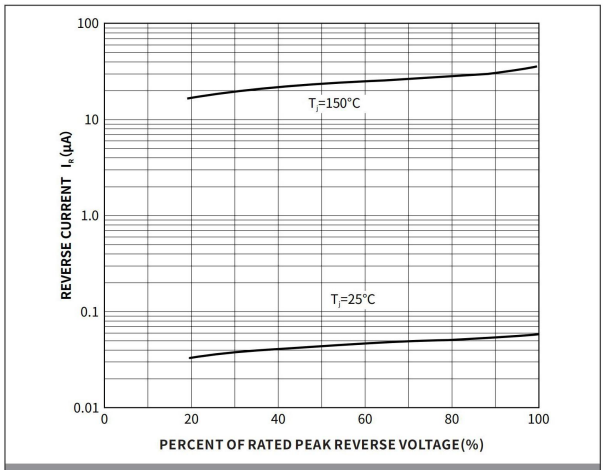


Fig.2 Typical Reverse Characteristics

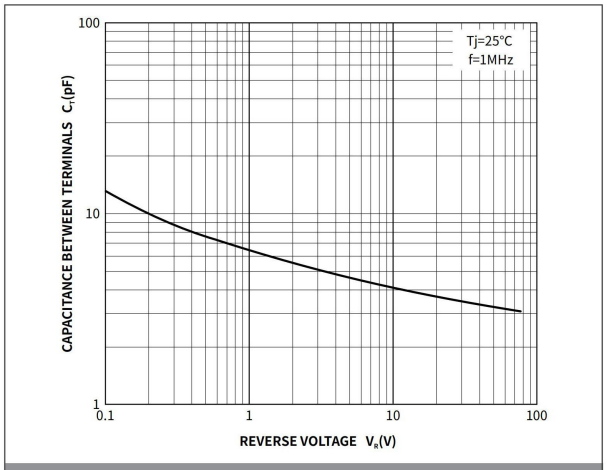


Fig.3 Typical Junction Capacitance

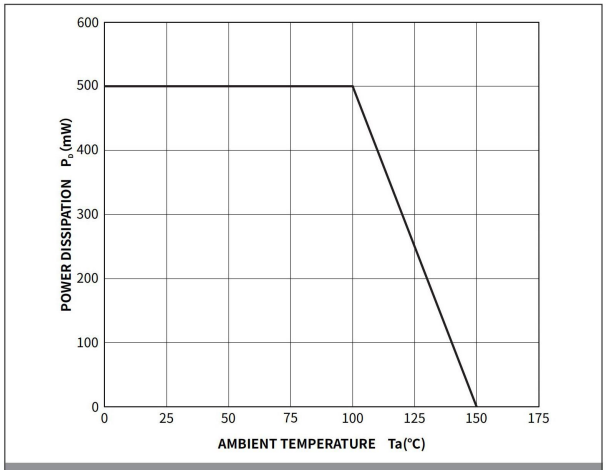


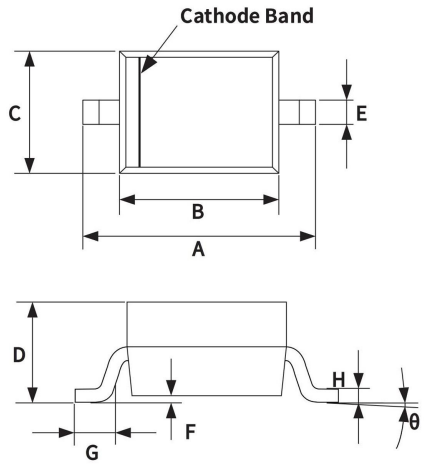
Fig.4 Power Derating Curve

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Ordering Information

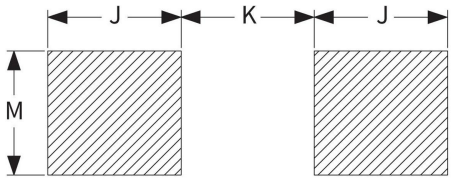
PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-123	R1	0.012	3000	30000	240000	7''

Package Outline Dimensions (SOD-123)



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	3.55	3.85	0.140	0.152
B	2.55	2.85	0.100	0.112
C	1.40	1.80	0.055	0.071
D	0.95	1.35	0.140	0.152
E	0.51	0.71	0.037	0.053
F	-	0.15	-	0.006
G	0.15	0.45	0.006	0.008
H	0.08	0.25	0.003	0.010
θ	-	8°	-	8°

Suggested Pad Layout



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	0.91	-	0.036	-
K	-	2.36	-	0.092
M	1.22	-	0.048	-