

SOD-123 Fast Switching Diodes

Features

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

Applications

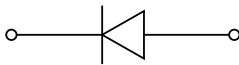
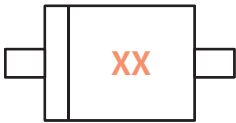
For use in low voltage high frequency circuit signals.

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

Function Diagram

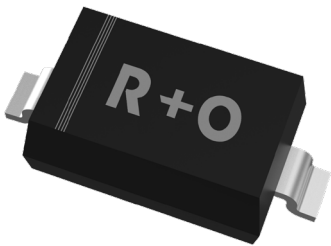
Marking:
BAV19W:A8
BAV20W:T2
BAV21W:T3



Reverse Voltage
120 V/200V/250V

Forward Current
0.25 Ampere

SOD-123



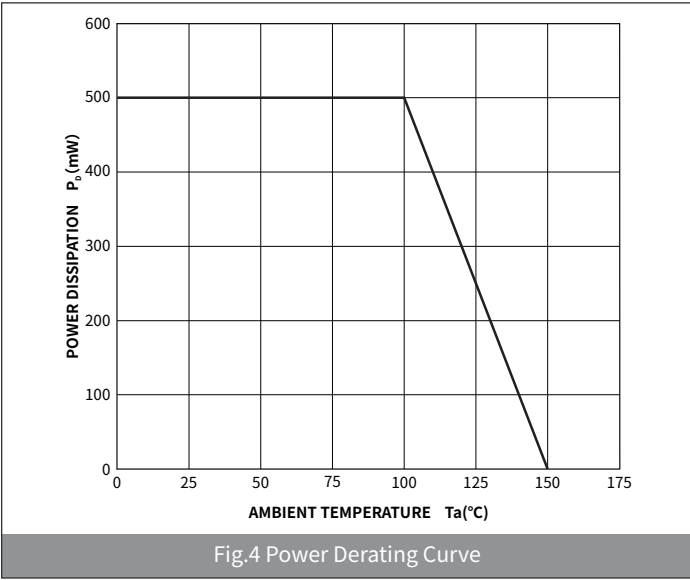
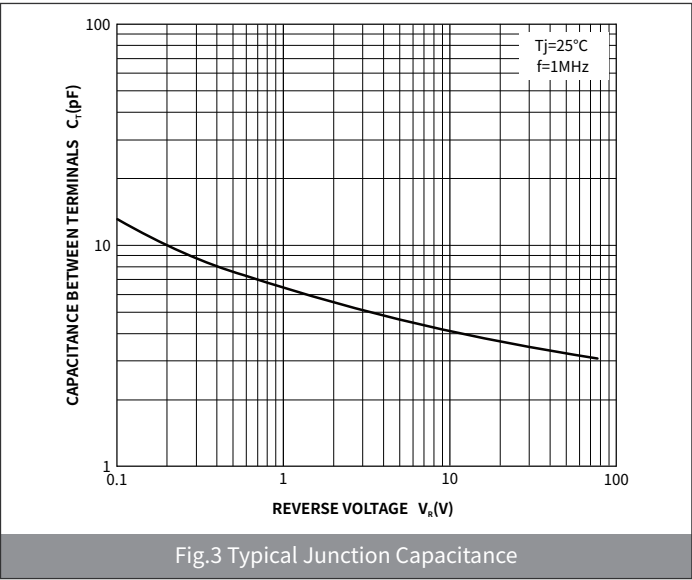
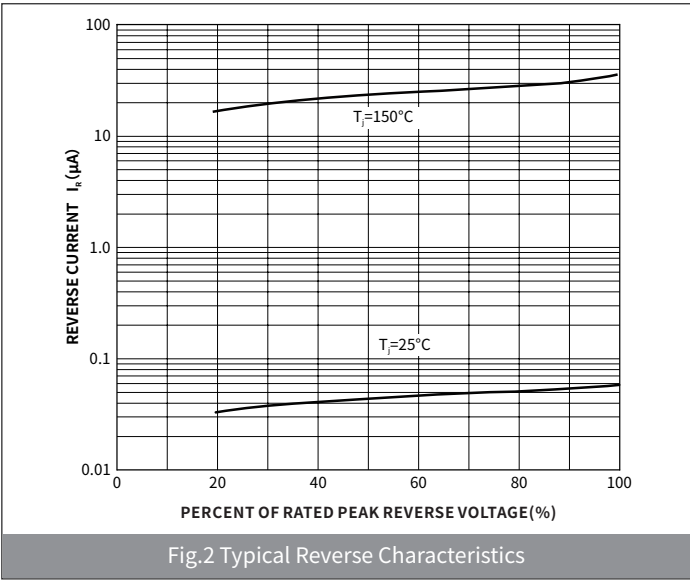
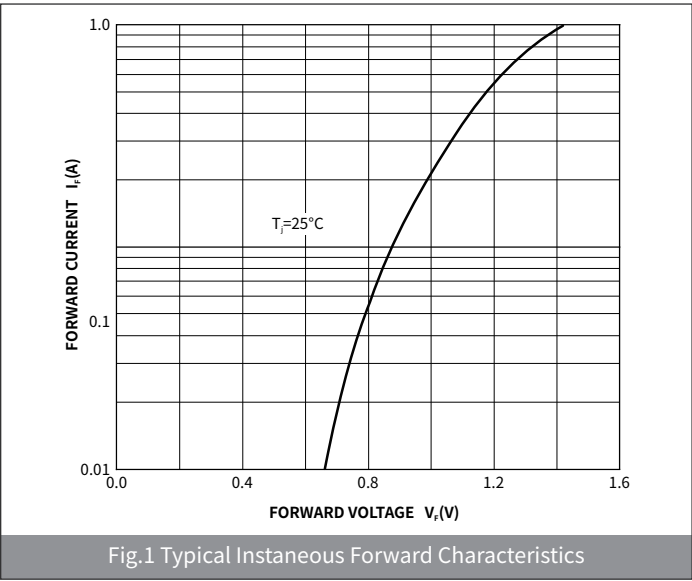
Maximum Ratings (Ta=25°C Unless otherwise specified)

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 @ $I_R=100\mu\text{A}$	$V_{(BR)R}$	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 @ $t_p=1.0\text{ms}$	I_{FSM}	A	3		
Non-Repetitive Peak forward surge current @ $t_p=1.0\mu\text{s}$			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		

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	BAV19W	BAV20W	BAV21W
Maximum instantaneous forward voltage	$I_F=200\text{mA}$	V_F	V	1.25		
Reverse Leakage Current	$V_R=V_{\text{RMS}}$	I_R	nA	100		
Total capacitance	$V_R=4\text{V}, f=1\text{MHz}$	C_T	pF	5.0		
Maximum reverse recovery time	$I_F=I_R=30\text{mA}, I_{\text{rr}}=0.1 \times I_R, R_L=100\Omega$	T_{rr}	ns	50		

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



BAV19W THRU BAV21W

FAST SWITCHING DIODES

● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-123	R1	0.012	3000	30000	180000	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	-