

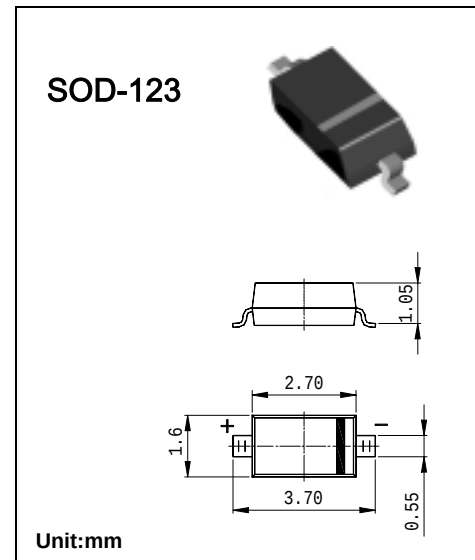
SOD-123 Plastic-Encapsulate Diode

BAV19W-BAV21W **SWITCHING DIODE**

Features

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

Marking: BAV19W A8 ☐
BAV20W T2 ☐
BAV21W T3



Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	BAV19W	BAV20W	BAV21W	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	120	200	250	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	71	106	141	V
Forward Continuous Current (Note 1)	I_{FM}	400			mA
Average Rectified Output Current (Note 1)	I_O	200			mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0ms @ t = 1.0s	I_{FSM}	2.5 0.5			A
Repetitive Peak Forward Surge Current	I_{FRM}	625			mA
Power Dissipation	P_d	250			mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	500			°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150			°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage (Note 2)	V_{FM}	—	1.0 1.25	V	$I_F = 100mA$ $I_F = 200mA$
Maximum Peak Reverse Current @ Rated DC Blocking Voltage (Note 2)	I_{RM}	—	100 15	nA μA	$T_j = 25^{\circ}C$ $T_j = 100^{\circ}C$
Junction Capacitance	C_j	—	5.0	pF	$V_R = 0, f = 1.0MHz$
Reverse Recovery Time	t_{rr}	—	50	ns	$I_F = I_R = 30mA,$ $t_{rr} = 0.1 \times I_R, R_L = 100$

Notes: 1. Valid provided that electrodes are kept at ambient temperature.
2. Short duration pulse test used to minimize self-heating effect.

Typical Characteristics

BAV19W-BAV21W

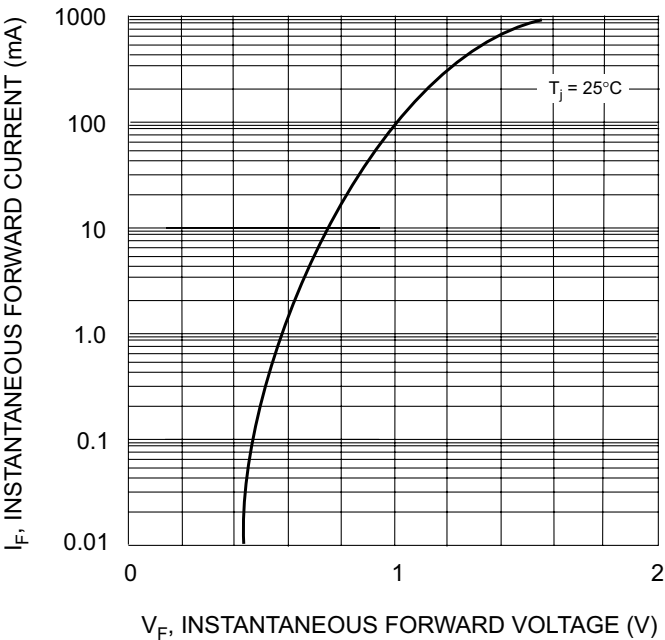


Fig. 1 Forward Characteristics

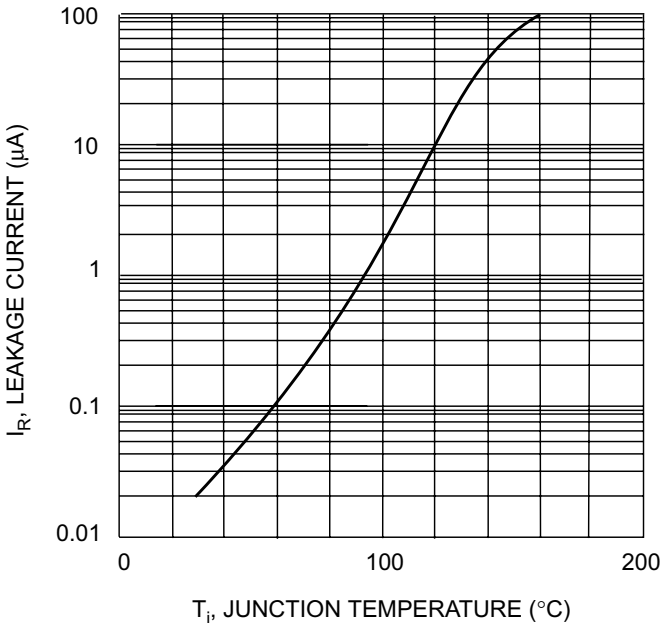
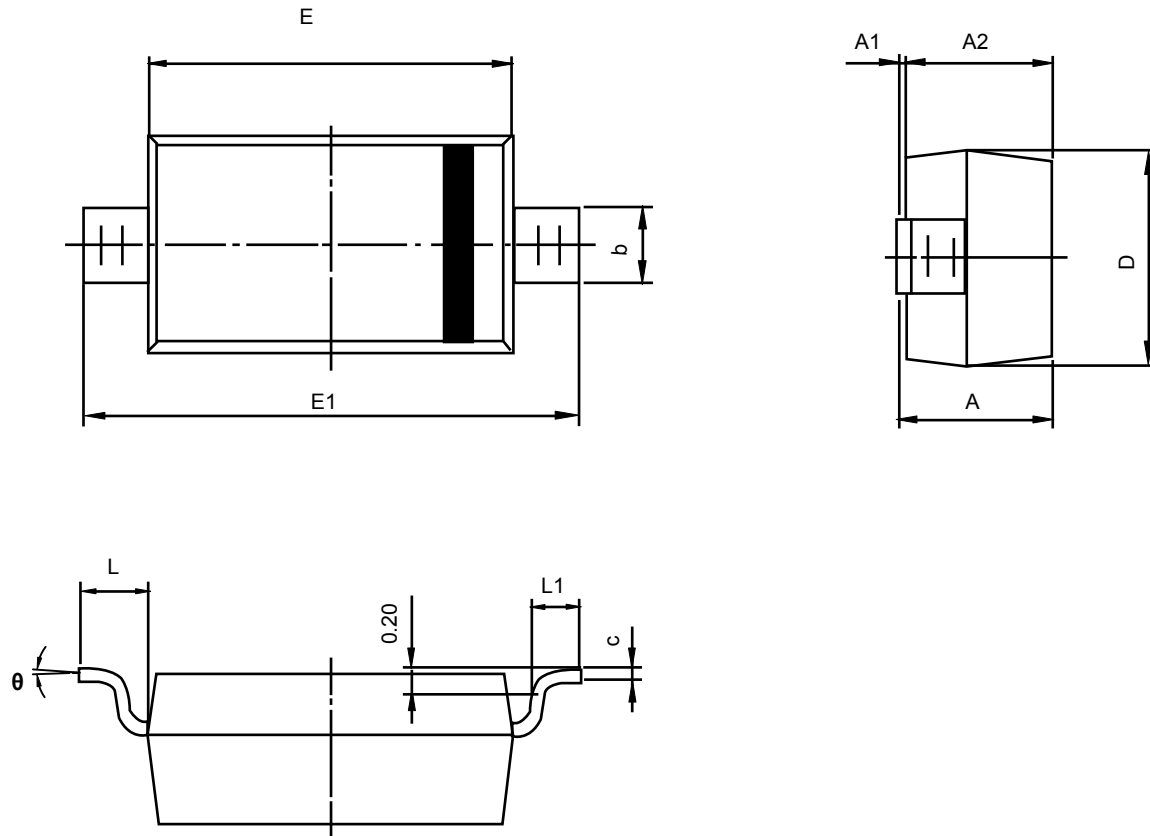


Fig. 2 Leakage Current vs Junction Temperature

SOD-123 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500REF		0.020REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°