

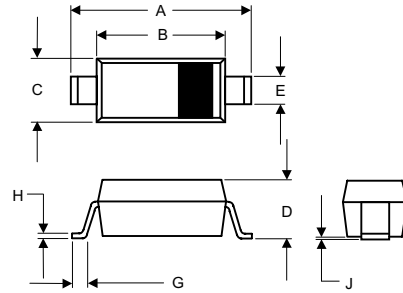
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free



PACKAGE DIMENSIONS

SOD-123
PLASTIC PACKAGE



DIM	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	0.550	0.071
D	-----	1.35	-----	0.053
E	0.30	0.78	0.120	0.031
G	0.15	-----	0.006	-----
H	-----	0.25	-----	0.001
J	-----	0.15	-----	0.006

Features

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

Marking

- BAV19P:A8
- BAV20P:T2
- BAV21P:T3

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	BAV19P	BAV20P	BAV21P	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	120	200	250	V
Working Peak Reverse Voltage DC Blocking Voltage	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 @ $t = 1.0\mu\text{s}$ @ $t = 1.0\text{s}$	I_{FSM}		2.5 0.5		A
Repetitive Peak Forward Surge Current	I_{FRM}		625		mA
Power Dissipation	P_d		200		mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$		625		K/W
Operating and Storage Temperature Range	T_j, T_{STG}		-65 to +150		$^\circ\text{C}$

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

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

Note: 1. Valid provided that terminals are kept at ambient temperature.

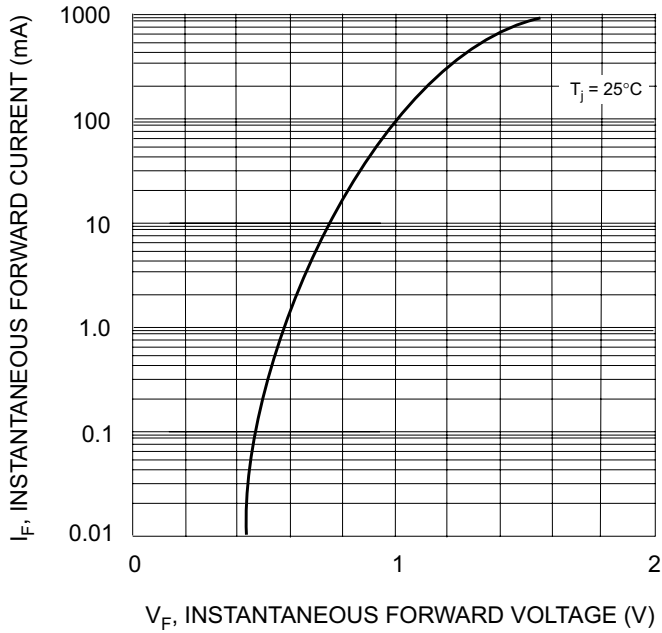


Fig. 1 Forward Characteristics

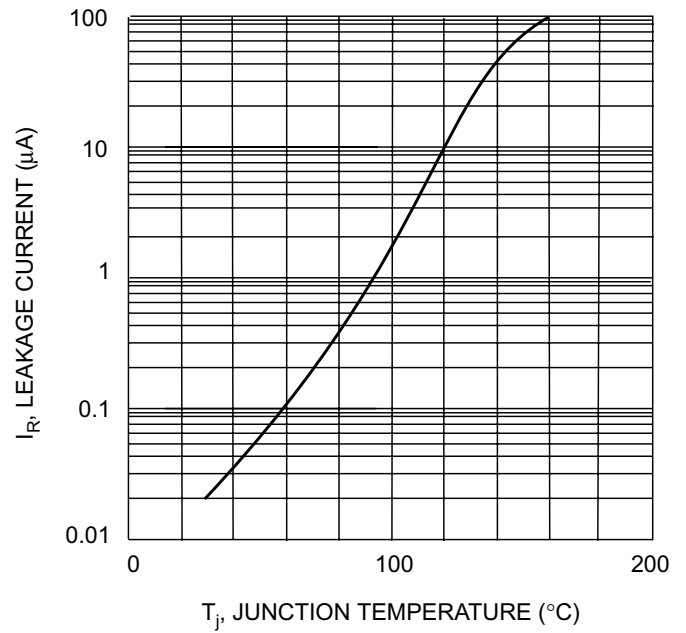


Fig. 2 Leakage Current vs Junction Temperature