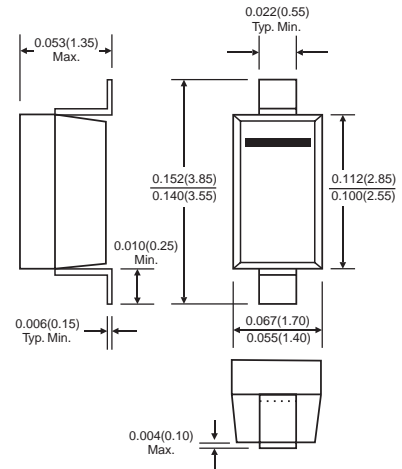




## SOD-123



Dimensions in inches and (millimeters)

## Features

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

## Mechanical Data

- ✧ Case: SOD-123, Molded Plastic
- ✧ Case Material: UL Flammability Rating Classification 94V-0
- ✧ Polarity: Cathode Band
- ✧ Type Code: BAV19W: A8 or T2 or T3  
BAV20W: T2 or T3  
BAV21W: T3
- ✧ Weight: 0.01 grams (approx.)

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

### Maximum Ratings

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	$I_{FM}$	400			mA
Average Rectified Output Current	$I_O$	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 (Note 2)	$P_d$	250			mW
Thermal Resistance Junction to Ambient Air (Note 2)	$R_{\theta JA}$	500			°C/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150			°C

### Electrical Characteristics

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 1) BAV19W BAV20W BAV21W	$V_{(BR)R}$	120 200 250	—	V	$I_R = 100\mu A$
Forward Voltage (Note 1)	$V_{FM}$	—	1.0 1.25	V	$I_F = 100mA$ $I_F = 200mA$
Peak Reverse Current @ Rated DC Blocking Voltage (Note 1)	$I_{RM}$	—	100 15	nA $\mu A$	$T_j = 25^\circ C$ $T_j = 100^\circ C$
Total Capacitance	$C_T$	—	5.0	pF	$V_R = 0, f = 1.0MHz$
Reverse Recovery Time	$t_{rr}$	—	50	ns	$I_F = I_R = 30mA,$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$

Notes: 1. Short duration pulse test used to minimize self-heating effect.

