

# Switching Diodes

## 410mW SOD-123

BAV19W~BAV21W

**MERITEK**

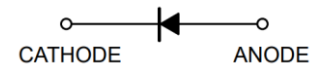
### FEATURE

- Power Dissipation: 410mW
- 120V~250V Peak Reverse Voltage
- 200mA Average Rectified Current
- Fast Switching Speed
- Electrically Identical to Standard JEDEC
- High Conductance



### MECHANICAL DATA

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD, Method 2026
- Polarity: Color Band Denotes Cathode End



### MAXIMUM RATING

Parameter	Symbol	BAV19W	BAV20W	BAV21W	Units
Reverse Voltage	$V_R$	100	150	200	V
Peak Reverse Voltage	$V_{RM}$	120	200	250	V
Rectified Current (Average), Half Wave Rectification with Resistive Load and $f \geq 50\text{Hz}$	$I_o$	200			mA
Peak Forward Surge Current, 1ms	$I_{FSM}$	4			A
Power Dissipation Derate above 25°C	$P_{TOT}$	410			mW
Maximum Forward Voltage at 0.1A	$V_F$	1.0			V
Maximum Reverse Current at $T_J=25^\circ\text{C}$	$I_R$	0.1@100V	0.1@150V	0.1@200V	$\mu\text{A}$
Typical Junction Capacitance	$C_J$	5			pF
Maximum Reverse Recovery	$T_{RR}$	50			ns
Typical Thermal Resistance	$R_{\theta JA}$	450			$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55~150			$^\circ\text{C}$

Note:

1.  $T_A = 25^\circ\text{C}$  unless otherwise specified.
2. For capacitive load, derate current by 20%.
3.  $C_J$  at  $V_R=0$ ,  $f=1\text{MHz}$ .
4. From  $I_F=10\text{mA}$  to  $I_R=1\text{mA}$ ,  $V_R=6\text{V}$ ,  $R_L=100\Omega$ .

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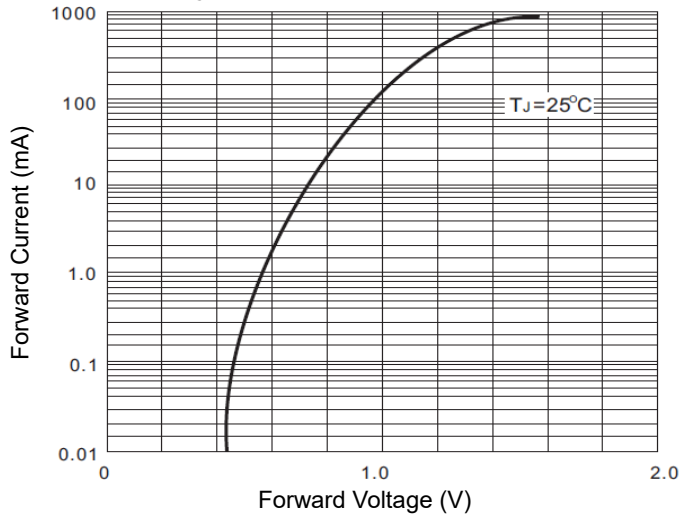
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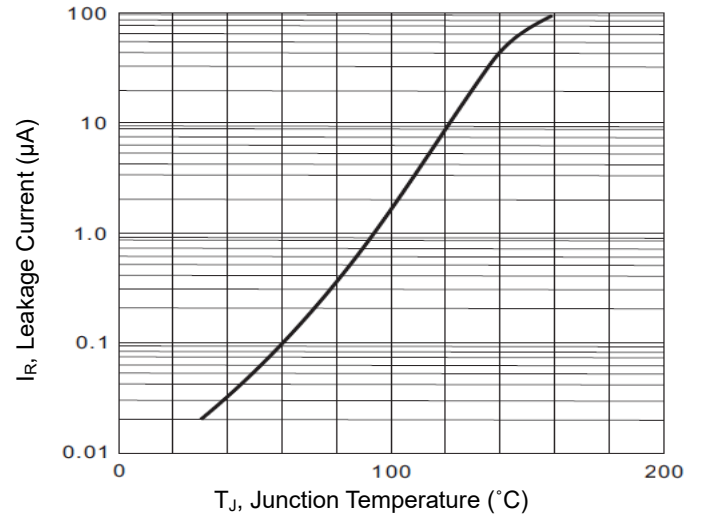
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### CHARACTERISTIC CURVES

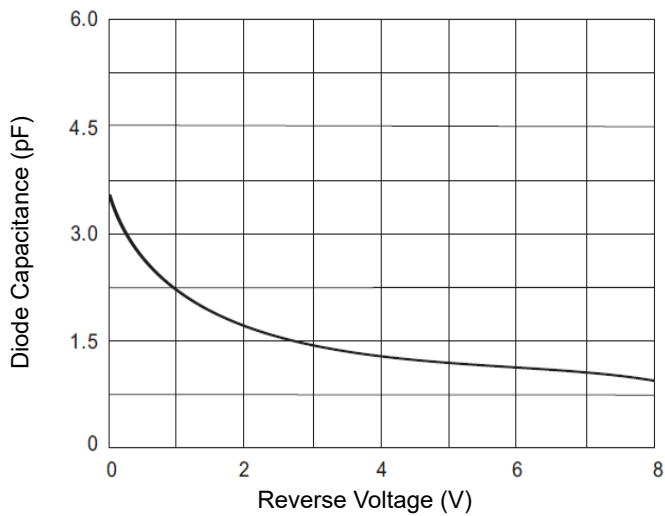
Typical Forward Characteristics



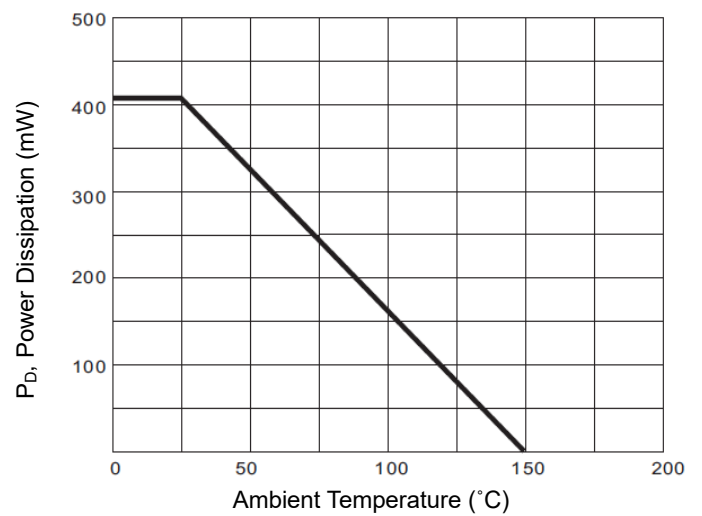
Leakage Current vs. Junction Temperature



Typical Junction Capacitance



Power Derating Curve



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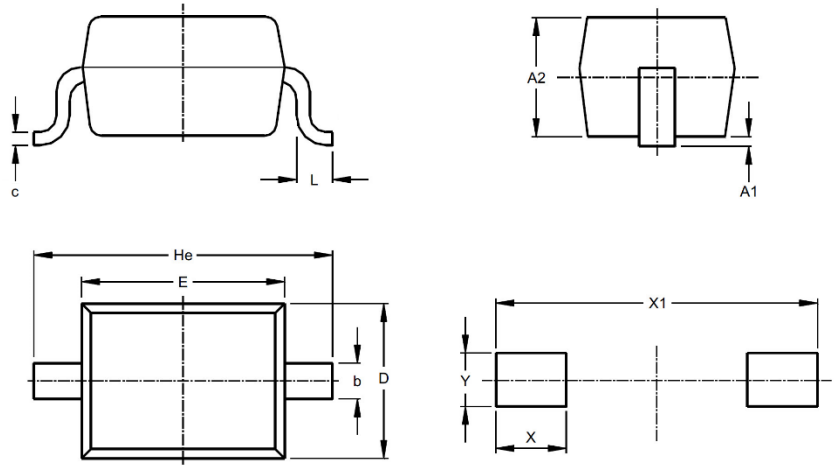
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### DIMENSIONS

SOD-123	Min (mm)	Max (mm)
A1	-	0.12
A2	0.95	1.35
b	0.50	0.70
C	-	0.20
D	1.40	1.80
E	2.50	2.80
He	3.60	3.90
L	0.40	-
X	0.97	
X1	4.25	
Y	1.22	



\*Specifications subject to change without notice.