

Switching Diodes

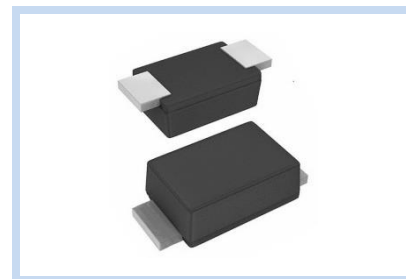
200mW SOD-323

BAV19WS~BAV21WS

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FEATURE

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



MECHANICAL DATA

- Case: SOD-323, Molded Plastic
- Terminals: Solderable per MIL-STD, Method 2026
- Polarity: Color Band Denotes Cathode End



MAXIMUM RATING

Parameter	Symbol	BAV19WS	BAV20WS	BAV21WS	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, 0.001ms	I_{FSM}	4			A
Repetitive Peak Forward Current at $f \geq 50\text{Hz}$, $\theta = 180^\circ$, $T_{amb} = 25^\circ\text{C}$	I_{FRM}	625			mA
Power Dissipation Derate above 25°C	P_{TOT}	200			mW
Maximum Forward Voltage at 0.1A	V_F	1.0			V
Maximum DC Reverse Current at Rated DC Blocking Voltage, $T_J = 25^\circ\text{C}$	I_R	0.1			μA
Typical Junction Capacitance	C_J	5			pF
Maximum Reverse Recovery Time	T_{RR}	50			ns
Maximum Thermal Resistance	Note 5	$R_{\theta JA}$	640		$^\circ\text{C/W}$
	Note 6	$R_{\theta JC}$	260		$^\circ\text{C/W}$
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 $I_R = 1\text{mA}$, $V_R = 6\text{V}$, $R_L = 100\Omega$.
5. Mounted on a FR4 PCB with minimum recommended pad size.
6. Mounted on a FR4 PCB, single-sided copper, with 100cm^2 copper pad area.

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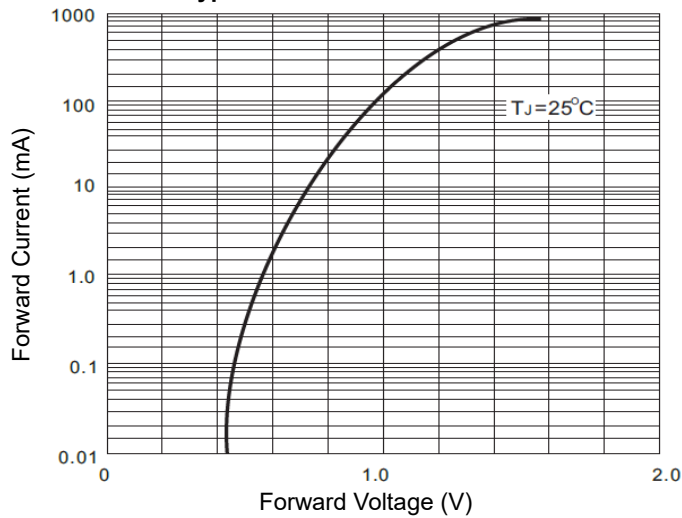
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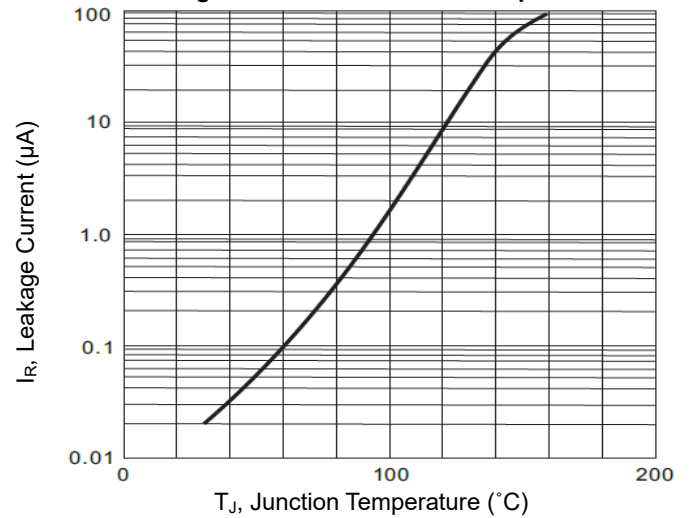
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CHARACTERISTIC CURVES

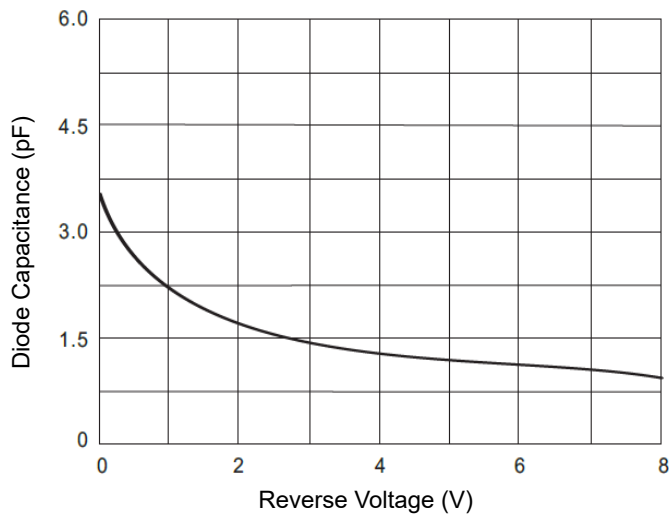
Typical Forward Characteristics



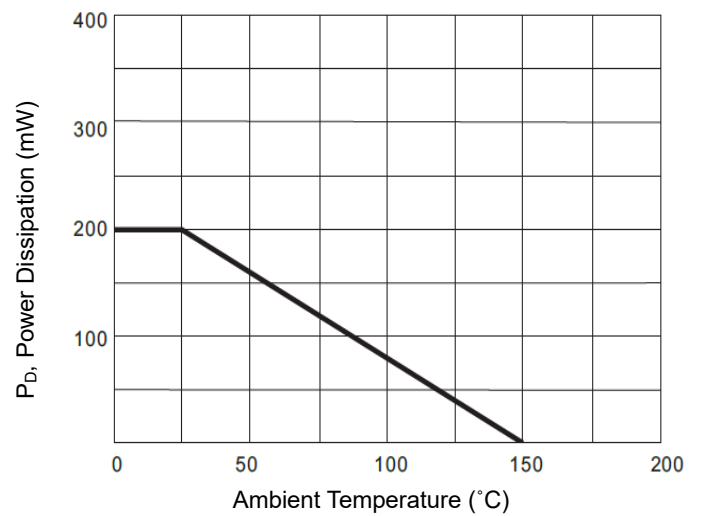
Leakage Current vs. Junction Temperature



Typical Junction Capacitance



Power Derating Curve



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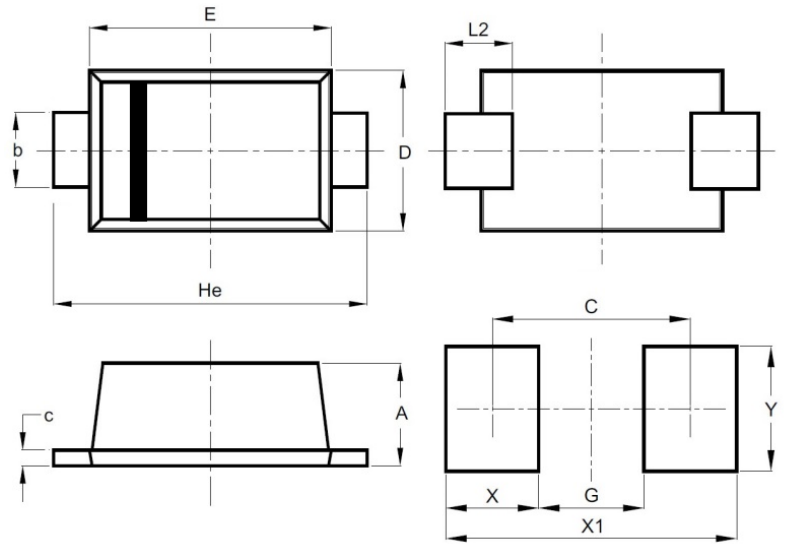
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DIMENSIONS

SOD-323	Min (mm)	Max (mm)
A	0.70	0.90
b	0.25	0.35
c	0.05	0.15
D	1.15	1.35
E	1.75	1.95
He	2.30	2.70
L2	0.30	-
G	1.44	
C	2.17	
X	0.73	
X1	2.90	
Y	0.50	



*Specifications subject to change without notice.