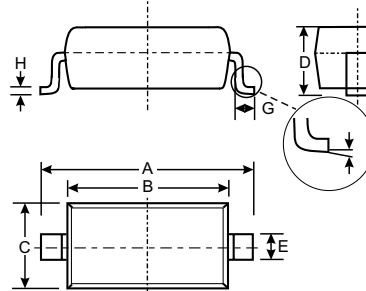


### Features

- 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
- Moisture Sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Date Code and Type Code, See Page 2  
Type Code: BAV19W: A8 or T2 or T3  
BAV20W: T2 or T3  
BAV21W: T3
- Weight: 0.01 grams (approx.)
- Ordering Information: See Page 2



SOD-123		
Dim	Min	Max
A	3.55	3.85
B	2.55	2.85
C	1.40	1.70
D	—	1.35
E	0.55 Typical	
G	0.25	—
H	0.15 Typical	
J	—	0.10
All Dimensions in mm		

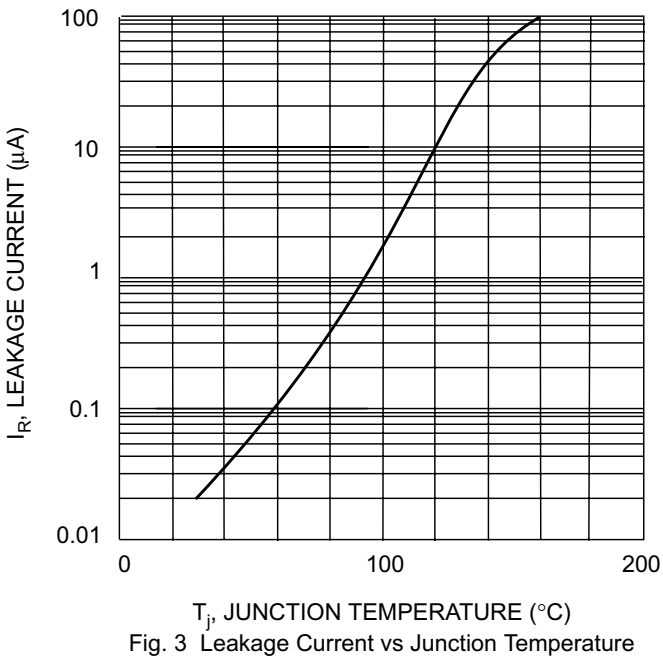
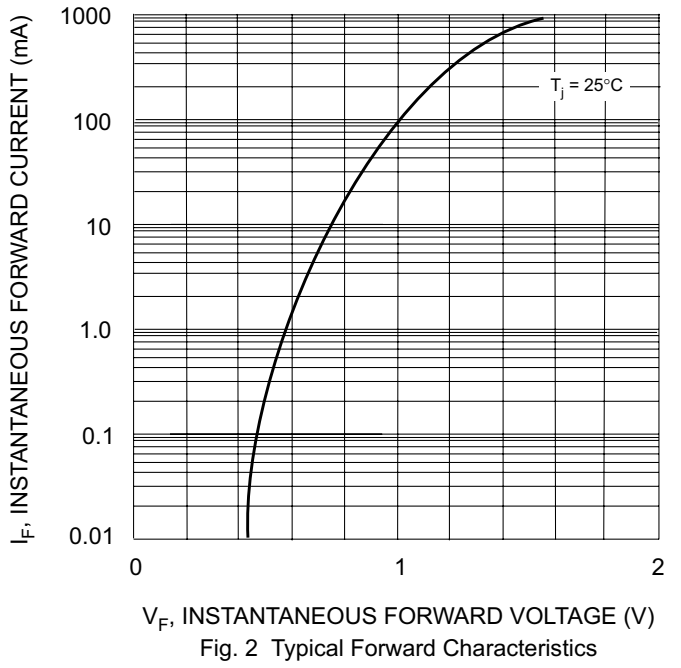
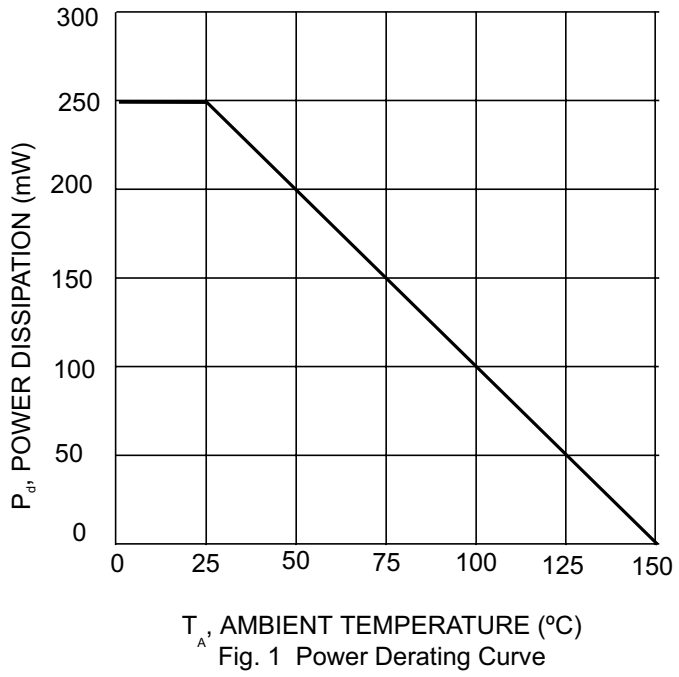
### Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	BAV19W	BAV20W	BAV21W	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	120	200	250	V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	100	150	200	V
Working Peak Reverse Voltage	V <sub>RWM</sub>				
DC Blocking Voltage	V <sub>R</sub>				
RMS Reverse Voltage	V <sub>R(RMS)</sub>	71	106	141	V
Forward Continuous Current	I <sub>FM</sub>		400		mA
Average Rectified Output Current	I <sub>O</sub>		200		mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0ms @ t = 1.0s	I <sub>FSM</sub>		2.5 0.5		A
Repetitive Peak Forward Surge Current	I <sub>FRM</sub>		625		mA
Power Dissipation (Note 2)	P <sub>d</sub>		250		mW
Thermal Resistance Junction to Ambient Air (Note 2)	R <sub>θJA</sub>		500		°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>		-65 to +150		°C

### Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 1)	V <sub>(BR)R</sub>	120 200 250	—	V	I <sub>R</sub> = 100μA
Forward Voltage (Note 1)	V <sub>FM</sub>	—	1.0 1.25	V	I <sub>F</sub> = 100mA I <sub>F</sub> = 200mA
Peak Reverse Current @ Rated DC Blocking Voltage (Note 1)	I <sub>RM</sub>	—	100 15	nA μA	T <sub>j</sub> = 25°C T <sub>j</sub> = 100°C
Total Capacitance	C <sub>T</sub>	—	5.0	pF	V <sub>R</sub> = 0, f = 1.0MHz
Reverse Recovery Time	t <sub>rr</sub>	—	50	ns	I <sub>F</sub> = I <sub>R</sub> = 30mA, I <sub>rr</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100Ω

- Notes:
1. Short duration pulse test used to minimize self-heating effect.
  2. Part mounted on FR-4 PC board with minimum recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.



## Ordering Information (Note 3)

Device	Packaging	Shipping
BAV19W-7	SOD-123	3000/Tape & Reel
BAV20W-7	SOD-123	3000/Tape & Reel
BAV21W-7	SOD-123	3000/Tape & Reel

Notes: 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

## Marking Information



XX = Product Type Marking Code  
 YM = Date Code Marking  
 Y = Year (ex: N = 2002)  
 M = Month (ex: 9 = September)

### Date Code Key

Year	1998	1999	2000	2001	2002	2003	2004	2005
Code	J	K	L	M	N	P	R	S

Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D