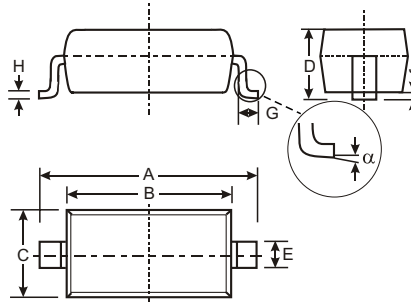


### Features

- Surface Mount Package Ideally Suited for Automatic Insertion
- Low Leakage Current
- Fast Switching Speed
- High Reverse Breakdown Voltage

### Mechanical Data

- Case: SOD-123, Molded Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Date Code and Type Code  
Type Code: 4P, See Page 2
- 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	0.11 Typical	
J	—	0.10
α	0°	8°
All Dimensions in mm		

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

Characteristic	Symbol	BAV3004W	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	350	V
Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RWM</sub> V <sub>R</sub>	300	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	212	V
Forward Continuous Current	I <sub>FM</sub>	225	mA
Repetitive Peak Forward Current	I <sub>FRM</sub>	625	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I <sub>FSM</sub>	4.0 1.0	A
Power Dissipation	P <sub>d</sub>	400	mW
Thermal Resistance Junction to Ambient Air	R <sub>θJA</sub>	312	°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	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	V <sub>(BR)R</sub>	350	—	—	V	I <sub>R</sub> = 100μA
Forward Voltage (Note 1)	V <sub>FM</sub>	—	0.78 0.93 1.03	0.87 1.0 1.25	V	I <sub>F</sub> = 20mA I <sub>F</sub> = 100mA I <sub>F</sub> = 200mA
Leakage Current (Note 1)	I <sub>RM</sub>	—	30 35	100 100	nA μA	V <sub>R</sub> = 240V, T <sub>j</sub> = 25°C V <sub>R</sub> = 240V, T <sub>j</sub> = 150°C
Junction Capacitance	C <sub>j</sub>	—	1.0	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> = 3.0mA, R <sub>L</sub> = 100Ω

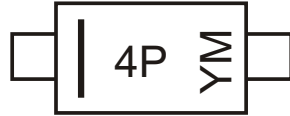
Notes: 1. Short duration pulse test to minimize self-heating effect.

## Ordering Information (Note 2)

Device	Packaging	Shipping
BAV3004W-7	SOD-123	3000/Tape & Reel

Notes: 2. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

## Marking Information



4P = Product Type Marking Code  
 YM = Date Code Marking  
 Y = Year (ex: N = 2002)  
 M = Month (ex: 9 = September)

Date Code Key

Year	2002	2003	2004	2005	2006	2007	2008	2009
Code	N	P	R	S	T	U	V	W

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

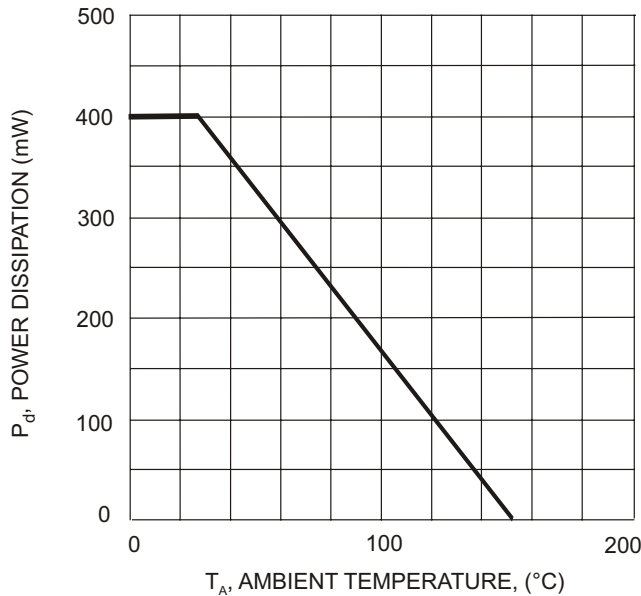


Fig. 1 Power Derating Curve

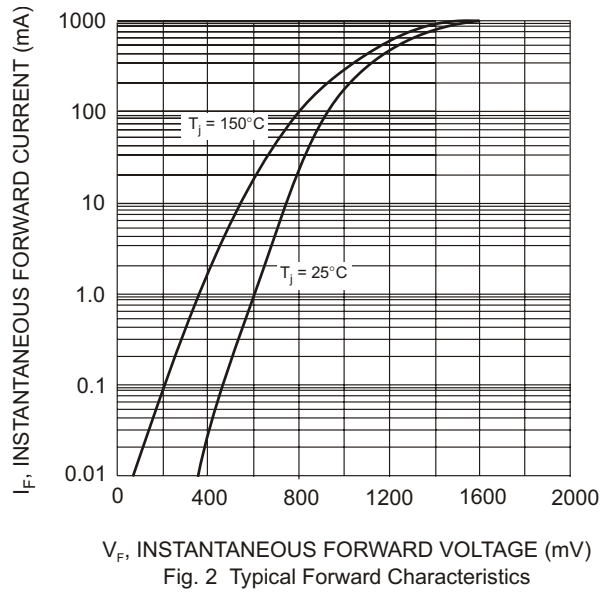


Fig. 2 Typical Forward Characteristics

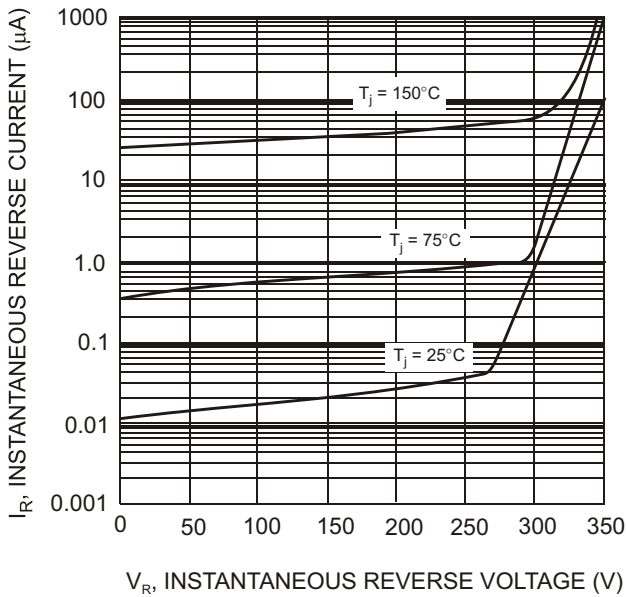


Fig. 3 Typical Reverse Characteristics

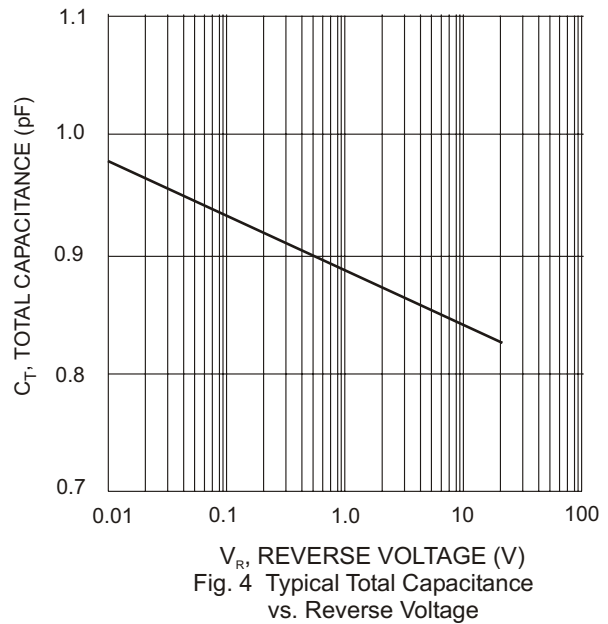


Fig. 4 Typical Total Capacitance vs. Reverse Voltage