BAV16W-1N4148W

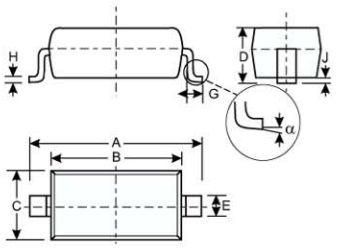
Features

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

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: T6, T4

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_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I_{FSM}	2.0 1.0	A
Power Dissipation (Note 2)	P_d	400	mW
Thermal Resistance Junction to Ambient Air (Note 2)	$R_{\theta JA}$	315	°C /W
Operating and Storage Temperature Range	T_j , T_{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	75	—	V	I_R = 1.0μA
Forward Voltage (Note 1)	V_{FM}	—	0.715 0.855 1.0 1.25	V	I_F = 1.0mA I_F = 10mA I_F = 50mA I_F = 150mA
Peak Reverse Current (Note 1)	I_{RM}	—	1.0 50 30 25	μA μA μA nA	V_R = 75V V_R = 75V, T_j = 150°C V_R = 25V, T_j = 150°C V_R = 20V
Total Capacitance	C_T	—	2.0	pF	V_R = 0, f = 1.0MHz
Reverse Recovery Time	t_{rr}	—	4.0	ns	I_F = I_R = 10mA, I_{rr} = 0.1 x I_R, R_L = 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.

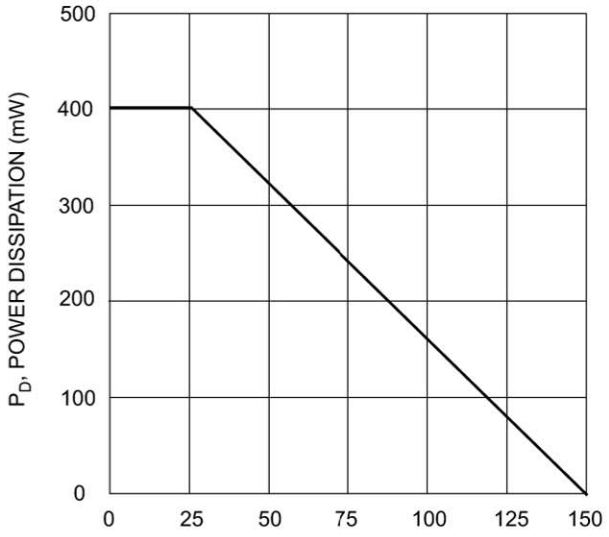


Fig. 1 Power Derating Curve

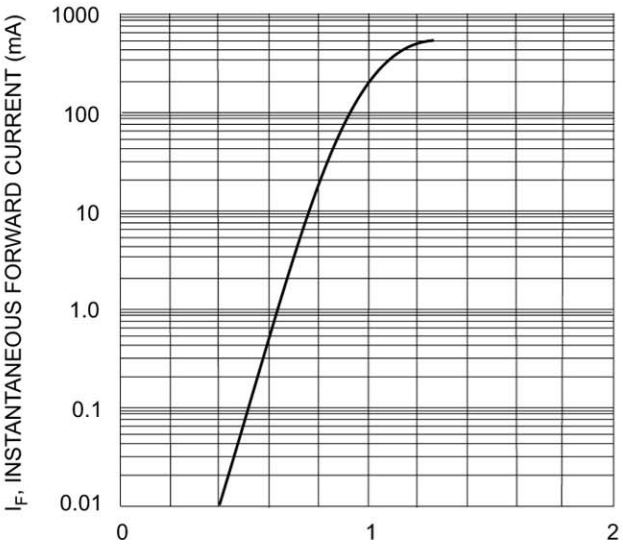


Fig. 2 Forward Characteristics

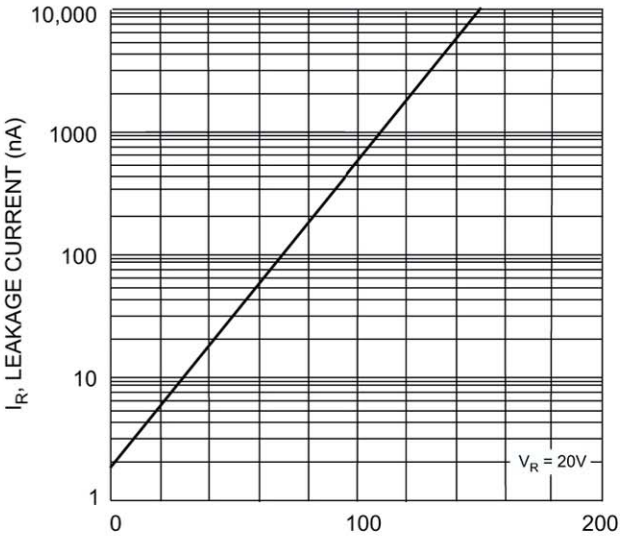


Fig. 3 Leakage Current vs Junction Temperature

Ordering Information (Note 3)

Device	Packaging	Shipping
BAV16W	SOD-123	3000/Tape & Reel
1N4148W	SOD-123	3000/Tape & Reel