



SURFACE MOUNT LOW LEAKAGE DIODE

FEATURES

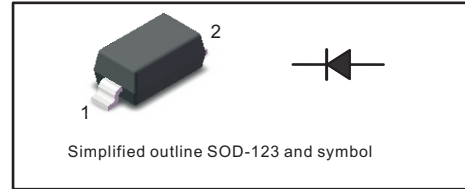
- Surface Mount Package Ideally Suited for Automatic Insertion
- Low Leakage Current
- Fast Switching Speed
- High Reverse Breakdown Voltage

MECHANICAL DATA

- Case: SOD-123
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 16mg/0.00056oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings at 25 °C

Parameter	Symbols	BAV3004W	Units
Peak Repetitive Reverse Voltage	V_{RRM}	350	V
Working Peak Reverse Voltage DC Blocking Voltage	V_{RWM} V_R	300	V
RMS Reverse Voltage	$V_{R(RMS)}$	212	V
Forward Continuous Current	I_{FM}	225	mA
Repetitive Peak Forward Current	I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	1 4	A
	at 1s at 1 us		
Total Power Dissipation	P_{tot}	400	mW
Typical Thermal Resistance ⁽¹⁾	$R_{\theta JA}$	500	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

(1) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Characteristics at $T_a = 25\text{ °C}$

Parameter	Symbols	BAV3004W	Units
Reverse Breakdown Voltage at $I_R = 100\mu\text{A}$	$V_{(BR)R}$	350	V
Maximum Forward Voltage	V_F	0.87 1.00 1.25	V
		at 20 mA at 100 mA at 200 mA	
Maximum DC Reverse Current	I_R	0.1 15	μA
		$T_a = 25\text{ °C}$ at Rated DC Blocking Voltage $T_a = 100\text{ °C}$	
Typical Junction Capacitance	C_j	5	pF
		at $V_R = 0\text{V}$, $f = 1\text{MHz}$	
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	50	ns

(1) Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$



Fig.1 Power Derating Curve

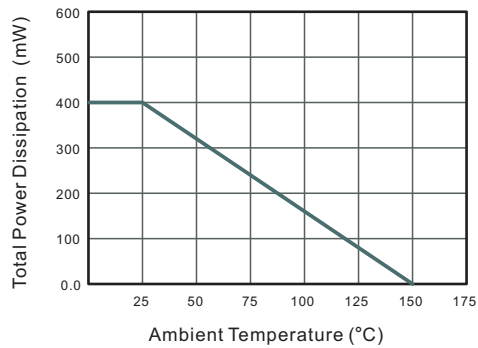


Fig.2 Typical Reverse Characteristics

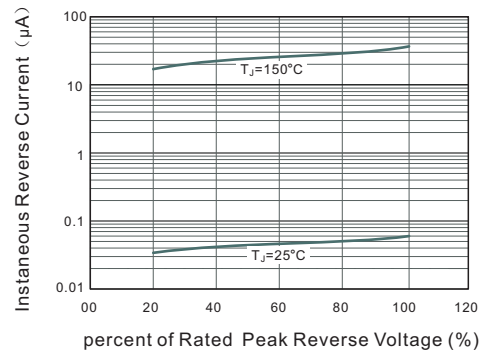


Fig.3 Typical Instantaneous Forward Characteristics

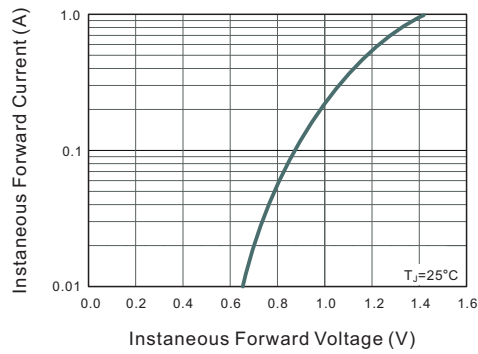
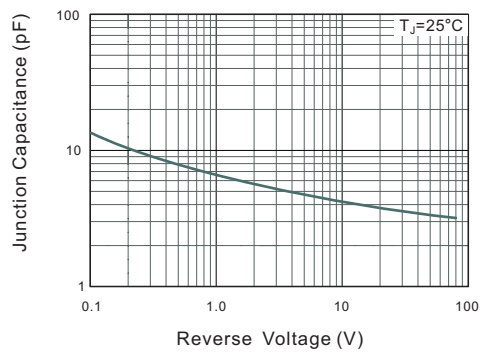


Fig.4 Typical Junction Capacitance

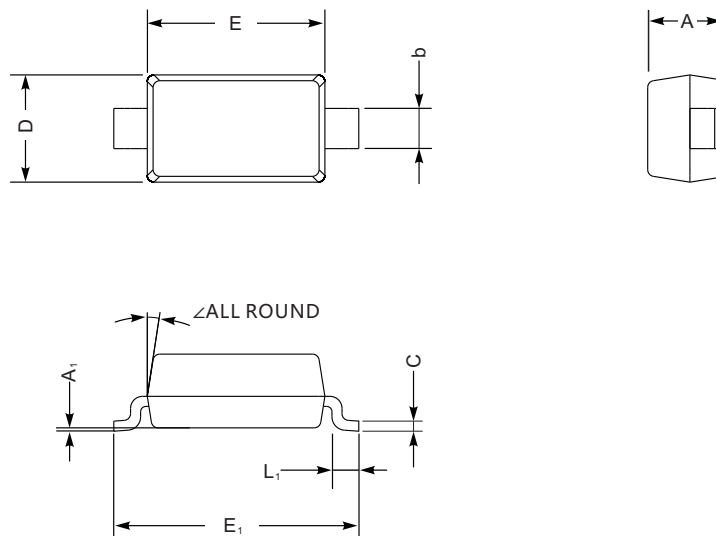




PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

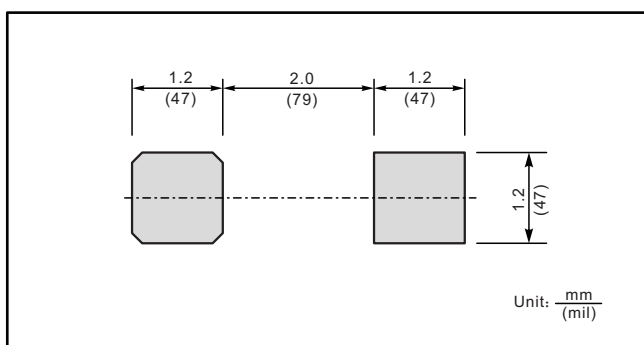
SOD-123



SOD-123 mechanical data

UNIT		A	C	D	E	E ₁	L ₁	b	A ₁	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

The recommended mounting pad size



Marking

Type number	Marking code
BAV3004W	4P