

FEATURES

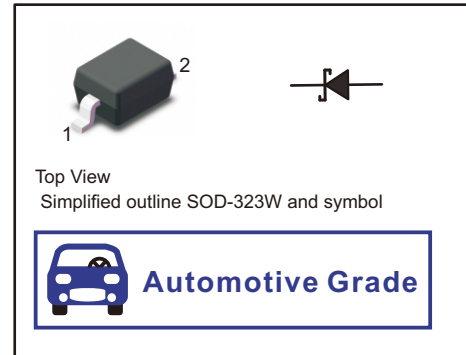
- For surface mounted applications
- Fast reverse recovery time
- Ideal for automated placement
- Totally Lead-Free & Fully RoHS Compliant (Notes 1)
- Halogen and Antimony “Green” Device (Note 2)
- Qualified to AEC-Q101 Standards for High Reliability (Note 3)

Mechanical Date

- Case: SOD-323W
- Case Material: Molded Plastic, “Green” Molding Compound;
UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Solderable per MIL-STD-750, Method 2026
- Weight: 16mg/0.00056oz (Approximate)

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings at 25 °C

Parameter	Symbols	AT-BAV19WB	AT-BAV20WB	AT-BAV21WB	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	120	200	250	V
RMS Reverse Voltage	V_{RMS}	71	106	141	V
Average Rectified Output Current	I_O	200			mA
Repetitive Peak Forward Current	I_{FRM}	625			mA
Non-repetitive Peak Forward Surge Current @t < 8.3ms	I_{FSM}	2			A
Total Power Dissipation	P_{tot}	400			mW
Operating and Storage Temperature Range	T_j, T_{stg}	-65 ~ +150			°C

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

Parameter	Symbols	AT-BAV19WB	AT-BAV20WB	AT-BAV21WB	Units
Reverse Breakdown Voltage at $I_R=100\text{ }\mu\text{A}$	$V_{(BR)R}$	120	200	250	V
Maximum Forward Voltage at 100 m A at 200 m A	V_F	1.00 1.25			V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25\text{ °C}$	I_R	0.1			μA
Typical Junction Capacitance at $V_R=0\text{V}$, $f=1\text{MHz}$	C_j	5			pF
Maximum Reverse Recovery Time (Note 4)	t_{rr}	50			ns

Notes: 1.No purposely added lead. Fully EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant.

2.Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

3.Automotive products are AEC-Q101 qualified and are PPAP capable. Automotive, AEC-Q10x and standard products are electrically and thermally the same, except where specified.

4.Measured with $I_F=I_R=30\text{mA}$, $I_{rr}=0.1I_R$, $R_L=100\Omega$



Fig.1 Power Derating Curve

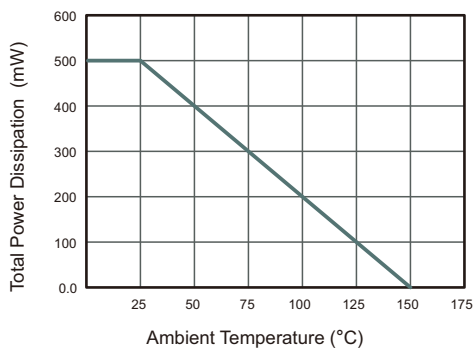


Fig.2 Typical Reverse Characteristics

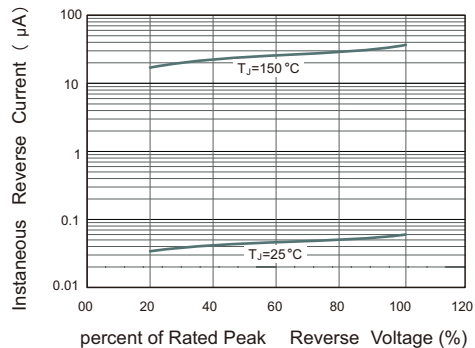


Fig.3 Typical Instaneous Forward Characteristics

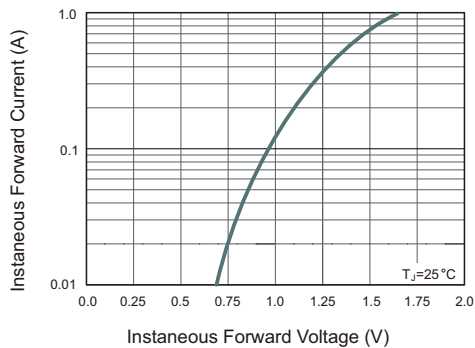
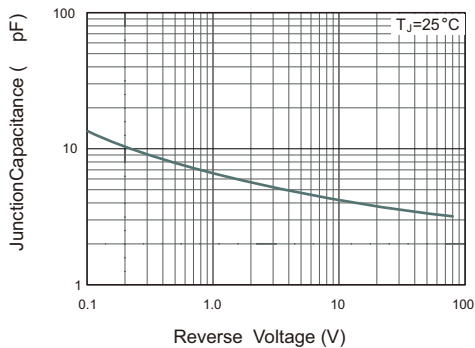


Fig.4 Typical Junction Capacitance

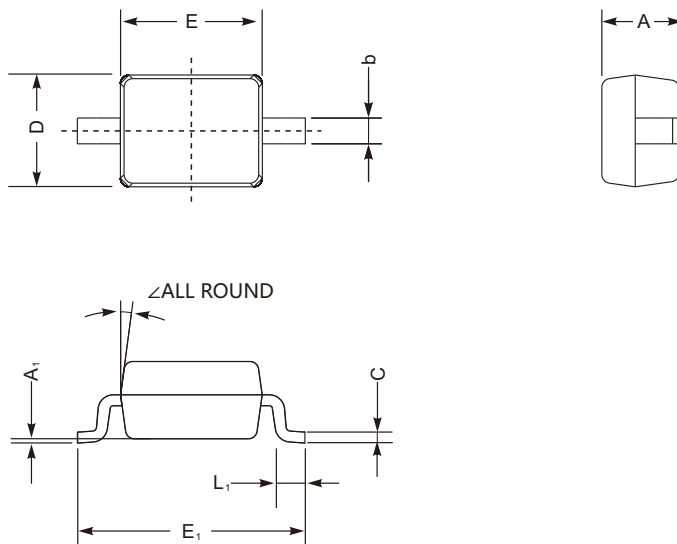




PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

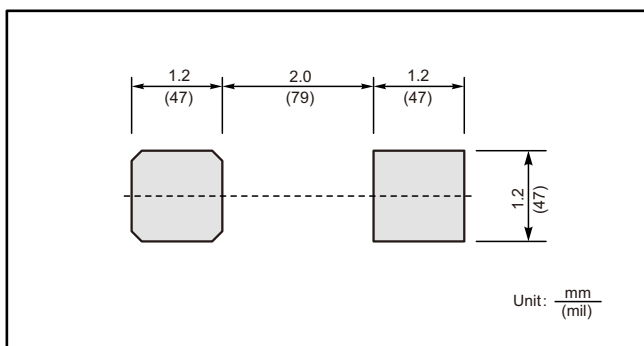
SOD-323W



SOD-323W mechanical data

UNIT		A	C	D	E	E ₁	b	L ₁	A ₁	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	55	100	9.8	7.9	—	

The recommended mounting pad size



Marking

Type number	Marking code
AT-BAV19WB	A8
AT-BAV20WB	T2
AT-BAV21WB	T3