



SURFACE MOUNT FAST SWITCHING DIODE

FEATURES

- For surface mounted applications
- Glass Passivated Chip Junction
- Fast reverse recovery time
- Ideal for automated placement
- Lead free in comply with EU RoHS 2011/65/EU directives
- Qualified to AEC-Q101 Standards for High Reliability

MECHANICAL DATA

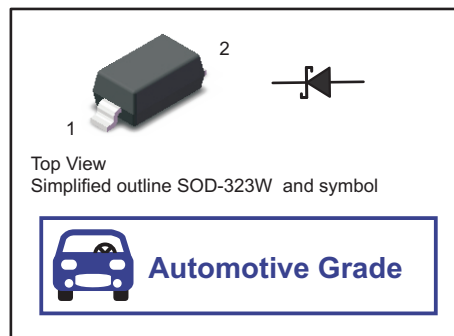
- Case: SOD-323W
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.48mg / 0.00019oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Parameter	Symbols	AT-BAS16WB	Units
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_{RMS}	53	V
Average Rectified Output Current (Note 1)	I_O	250	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	1	A
	$t=1.0ms$		
Total power dissipation	P_D	200	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	625	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-65 ~ +150	°C

NOTE:

(1) Valid provided that terminals are kept at ambient temperature.

(2) $I_F=I_R=10mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$



Electrical Characteristics(TA=+25°C , unless other otherwise specified)

Parameter		Symbols	AT-BAS16WB	Units
Reverse Breakdown voltage	at 1 m A	$V_{(BR)R}$	75	V
Maximum Forward Voltage	at 1 mA	V_F	0.715	V
	at 10 mA		0.855	
	at 50 mA		1.00	
	at 150 mA		1.25	
Peak Reverse Current	at V=75V Tj=25°C	I_R	1	uA
	at V=25V Tj=150°C		30	
	at V=75V Tj=150°C		50	
Typical Junction Capacitance	f=1MHz,VR=0V	C_j	1.5	pF
Maximum Reverse Recovery time(5)		t_{rr}	4	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.P.C.B. mounted with 5*5mm copper pad areas.
- 5.Measured with $I_F=I_R=10mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$.



Fig.1 Power Derating Curve

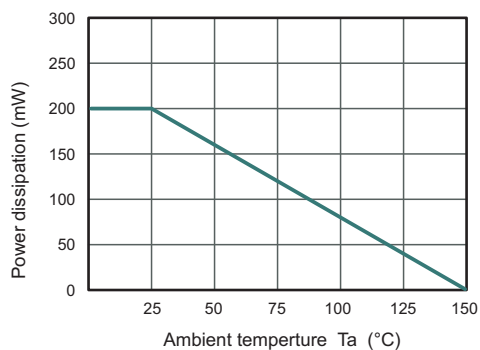


Fig.2 Typical Reverse Characteristics

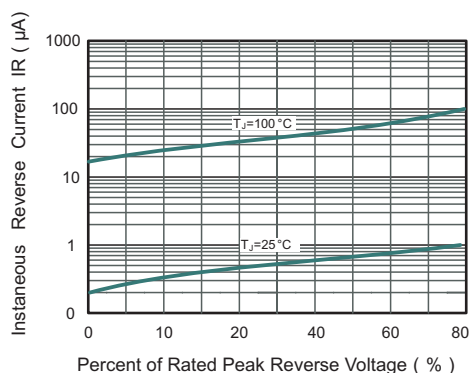


Fig.3 TYPICAL FORWARD VOLTAGE

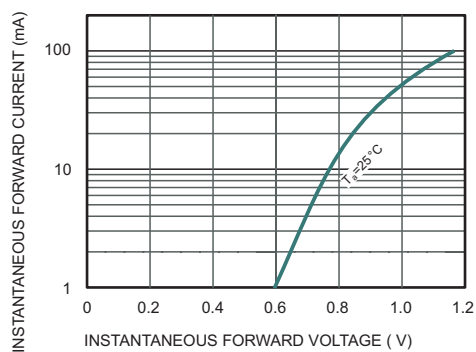


Fig.4 Typical Junction Capacitance

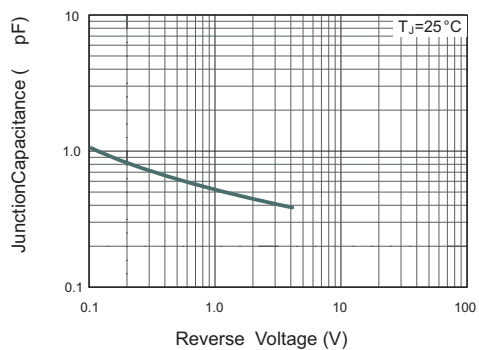
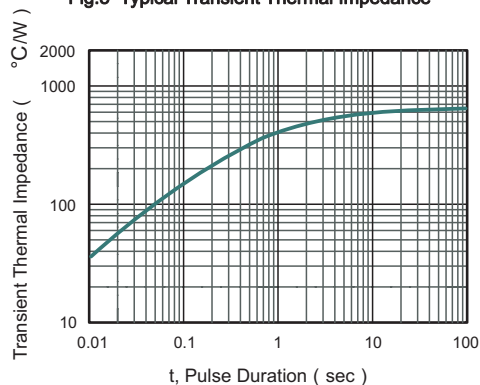


Fig.5 Typical Transient Thermal Impedance

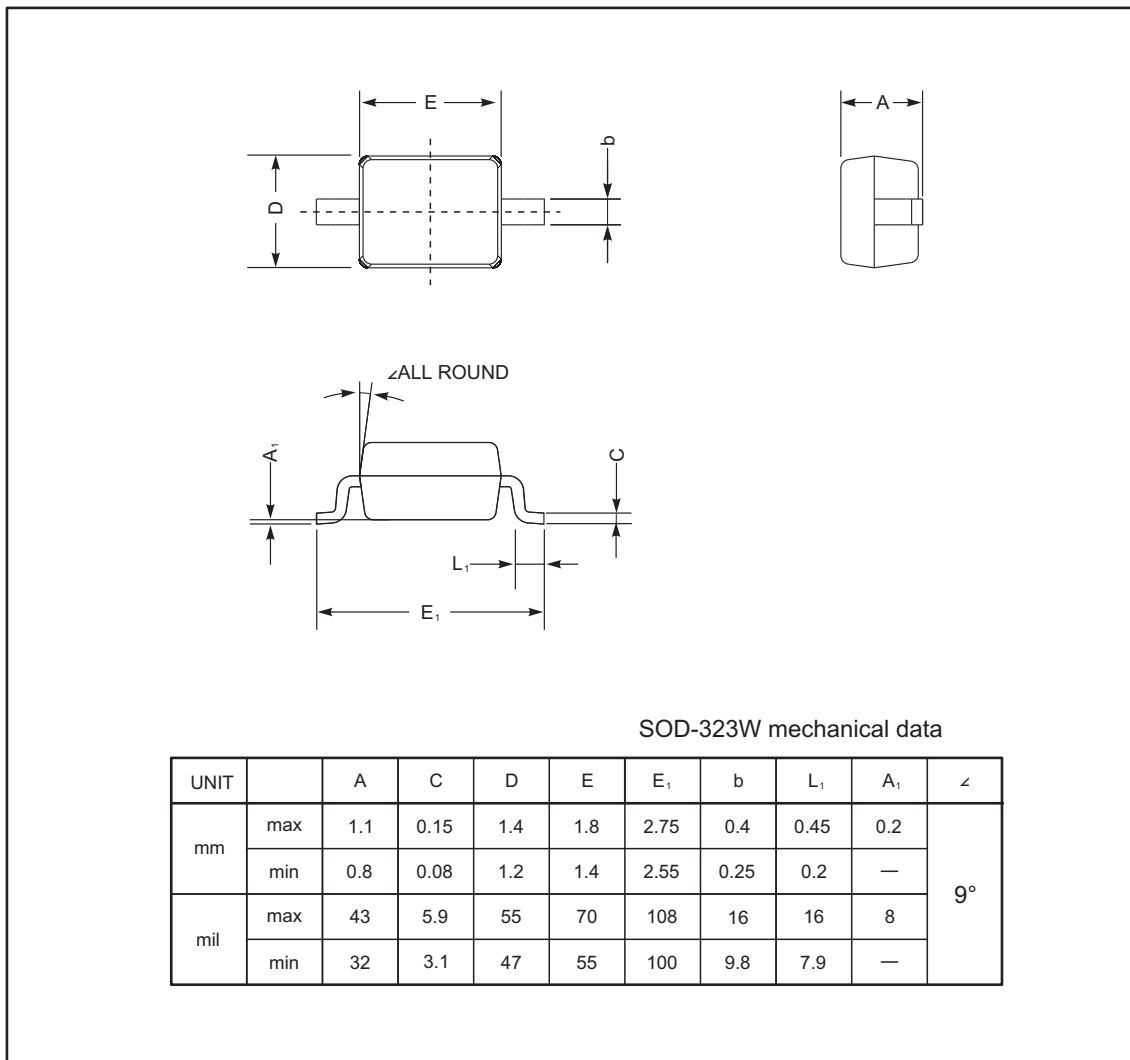




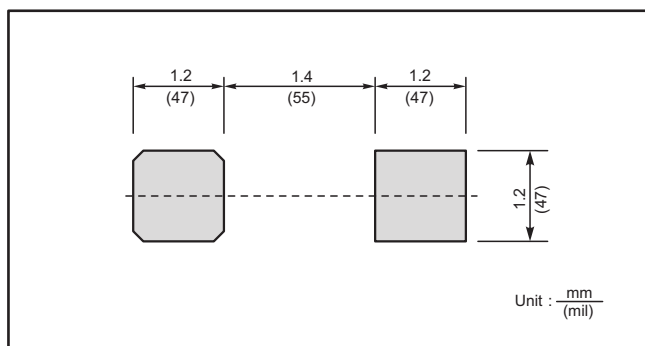
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323W



The recommended mounting pad size



Marking

Type number	Marking code
AT-BAS16WB	A6