

SOD-323



FEATURES

- For surface mounted applications
- Fast reverse recovery time
- Ideal for automated placement

MECHANICAL DATA

- Case: SOD-323
- 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.

Parameter	Symbols	BAS316	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Reverse Voltage	V_R	100	V
Average Rectified Forward Current	I_F	250	mA
Repetitive peak forward current	I_{FRM}	500	mA
Non-reptitive Peak Forward Surge Current at 1s at 1ms at 1us	I_{FSM}	0.5 1 4	A
Total Power Dissipation	P_{tot}	400	mW
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbols	BAS316	Units
Maximum Forward Voltage at 1 mA at 10 mA at 50 mA at 150 mA	V_F	0.715 0.855 1.00 1.25	V
Peak Reverse Current at $V_R=20\text{V}$ $T_j=25^\circ\text{C}$ at $V_R=75\text{V}$ $T_j=25^\circ\text{C}$ at $V_R=25\text{V}$ $T_j=150^\circ\text{C}$ at $V_R=75\text{V}$ $T_j=150^\circ\text{C}$	I_R	0.030 1 30 50	μA
Typical Junction Capacitance $f=1\text{MHz}, V_R=0\text{V}$	C_j	2	pF
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	4	ns

(1) Measured with $I_F=I_R=10\text{mA}$, $I_{rr}=0.1 \times I_R$, $R_L=100\Omega$

Typical Characteristics

Fig.1 Power Derating Curve

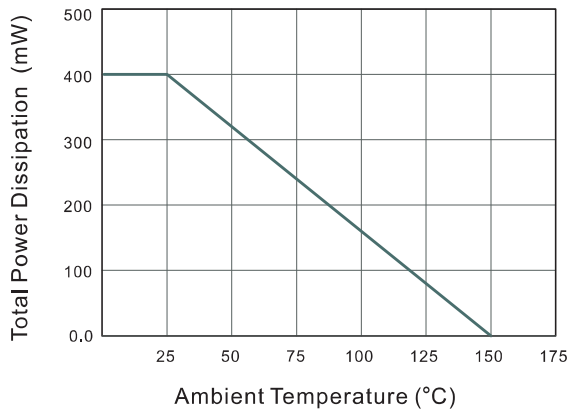


Fig.2 Typical Reverse Characteristics

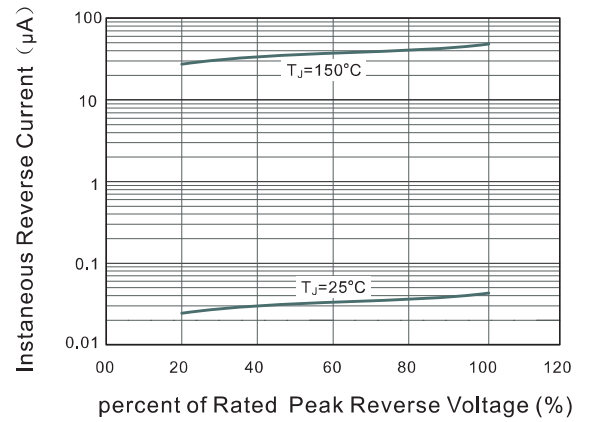


Fig.3 Typical Instantaneous Forward Characteristics

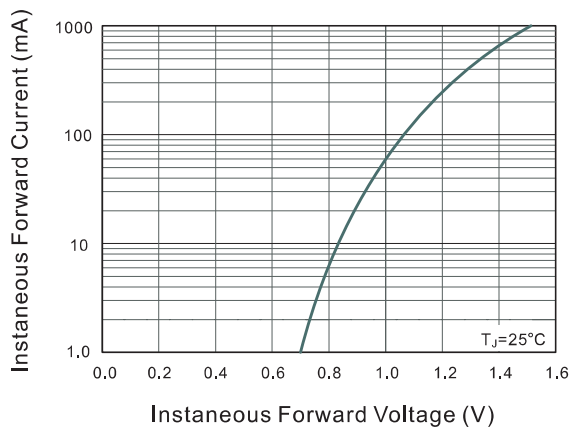
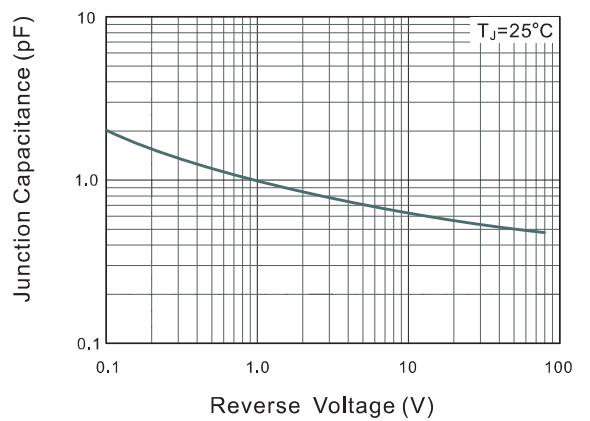


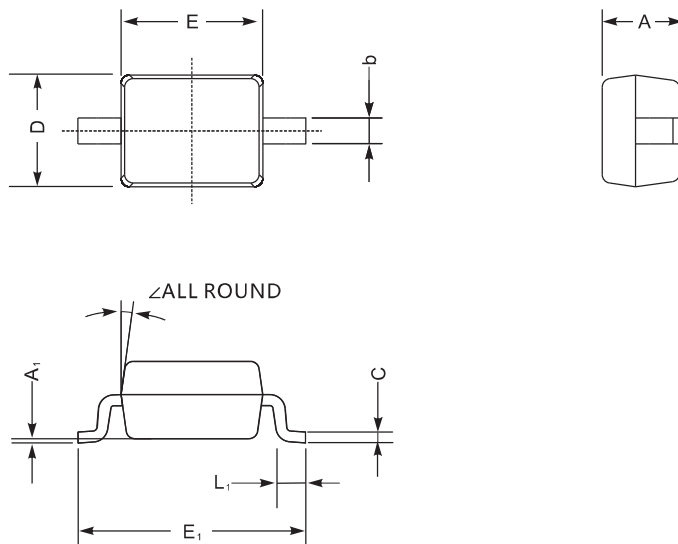
Fig.4 Typical Junction Capacitance



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

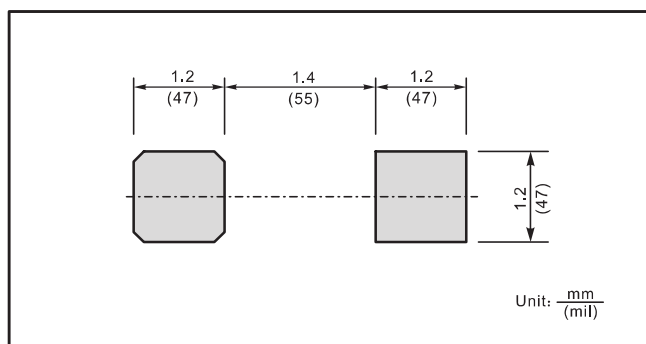
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SOD-323W mechanical data

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
BAS316	A6