



SCHOTTKY BARRIER RECTIFIERS

FEATURES

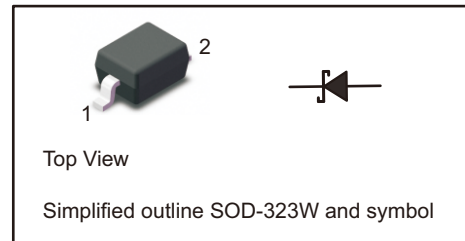
- Low Forward Voltage Drop
- Fast Switching Time
- Surface Mount Package Ideally Suited for Automated Insertion
- Lead, Halogen and Antimony Free, RoHS Compliant "Green" Device

MECHANICAL DATA

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Maximum Ratings and Electrical characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	BAT54WB	Units
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Average Rectified Output Current	I_O	100	mA
Forward Continuous Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	300	mA
Non-Repetitive Peak Forward Surge Current @t = 8.3ms	I_{FSM}	0.6	A
Power dissipation	P_D	200	mW
Reverse Breakdown Voltage $I_R = 100\mu A$	V_{BR}	30(Min)	V
Forward Voltage $I_F = 0.1\text{ mA}$ $I_F = 1.0\text{ mA}$ $I_F = 10\text{ mA}$ $I_F = 30\text{ mA}$ $I_F = 100\text{ mA}$	V_F	0.24(Max) 0.32(Max) 0.40(Max) 0.50(Max) 1.00(Max)	V
Peak Reverse Current $V_R = 25\text{ V}, T_j = 25^\circ\text{C}$	I_R	2.0(Max)	μA
Typical Junction Capacitance $V_R = 1\text{ V}, f = 1\text{ MHz}$	C_T	10(Max)	pF
Reverse Recovery Time $I_F = I_R = 10\text{ mA}$, $I_{rr} = 0.1 \times I_R$, $R_L = 100\Omega$	t_{rr}	5(Max)	ns
Thermal Resistance, Junction to Ambient Air (NOTE 1)	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

Notes: 1. Part mounted on FR-4 board with recommended pad layout.



TYPICAL CHARACTERISTICS

Fig.1 Power Derating Curve

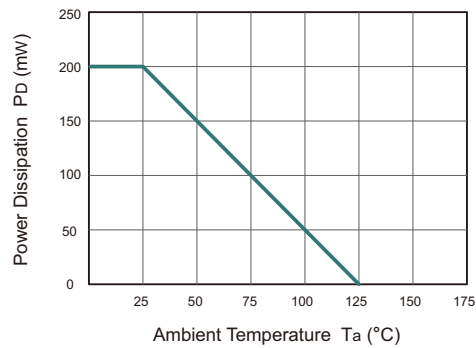


Fig.2 Typical Instantaneous Reverse Characteristics

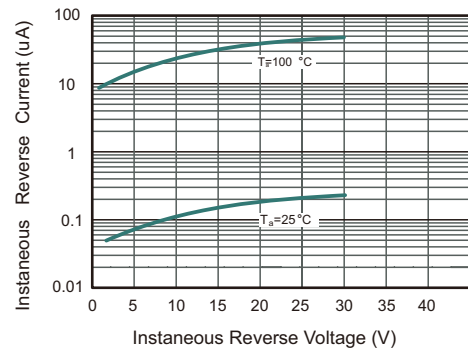


Fig.3 Typical Forward Characteristic

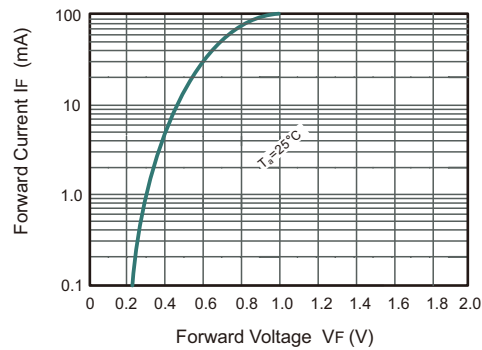
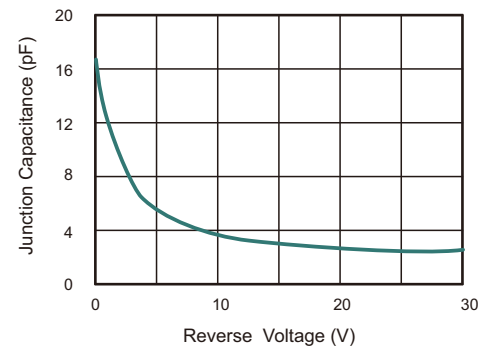


Fig.4 Capacitance Characteristics

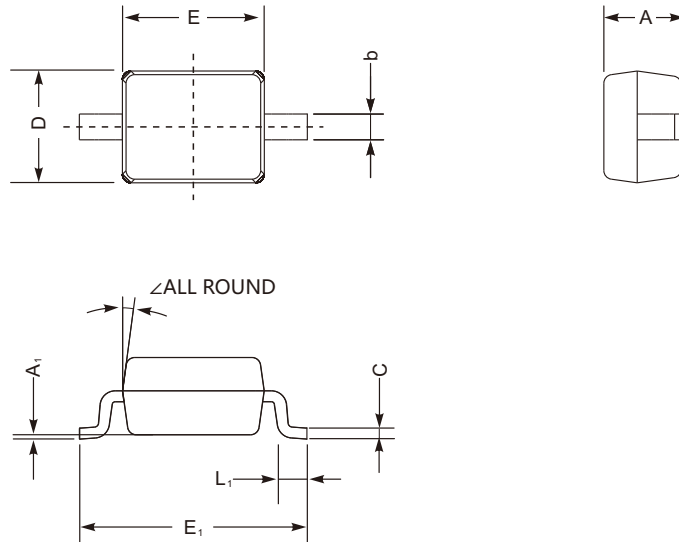




PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

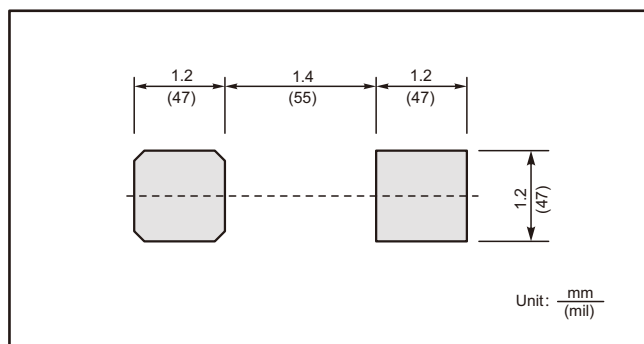
SOD-323W



SOD-323W mechanical data

UNIT		A	C	D	E	E ₁	b	L ₁	A ₁	$\angle$
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
BAT54WB	L9



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