SCHOTTKY BARRIER RECTIFIERS

FEATURES

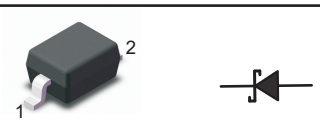
- Low Forward Voltage Drop
- Fast Switching Time
- Surface Mount Package Ideally Suited for Automated Insertion
- Lead, Halogen and Antimony Free, RoHS Compliant "Green" Device

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



Top View

Simplified outline SOD-323W and symbol

Maximum Ratings and Electrical characteristics
Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter		Symbols	BAT54WB	Units
Non-Repetitive Peak Reverse Voltage		V_{RM}	30	V
DC Blocking Voltage		V_R	21	V
Average Rectified Output Current		I_O	0.1	A
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 = 100μA	V_{BR}	30(Min)	V
Forward Voltage	I_F=0.1 mA I_F=1.0 mA I_F=10mA I_F=30mA I_F=100mA	V_F	0.24(Max) 0.32(Max) 0.40(Max) 0.50(Max) 1.00(Max)	V
Peak Reverse Current	V_R=25V,Tj=25℃	I_R	2.0(Max)	uA
Typical Junction Capacitance	V_R=1V,f=1MHz	C_T	10(Max)	pF
Reverse Recovery Time	I_F = I_R = 10mA, Irr = 0.1 x I_R, R_L = 100Ω	trr	5(Max)	ns
Thermal Resistance, Junction to Ambient Air (NOTE 1)		$R_{\theta JA}$	500	°C/W
Junction Temperature		T_j	125	°C
Storage Temperature		T_{stg}	-55 ~ +150	°C

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

Fig.1 Power Derating Curve

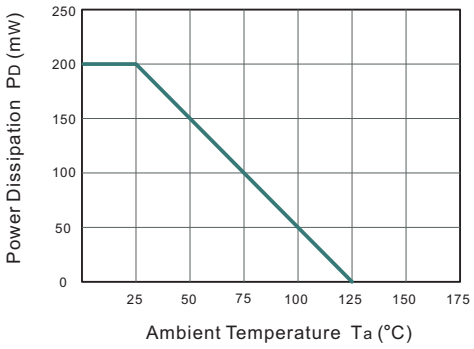


Fig.2 Typical Instaneous Reverse Characteristics

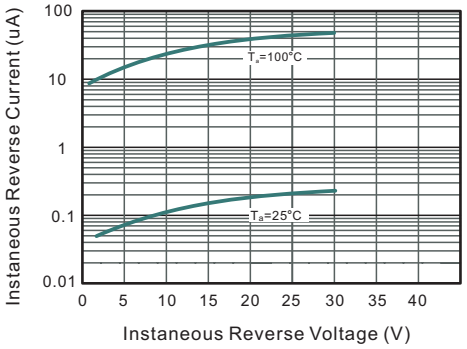


Fig.3 Typical Forward Characteristic

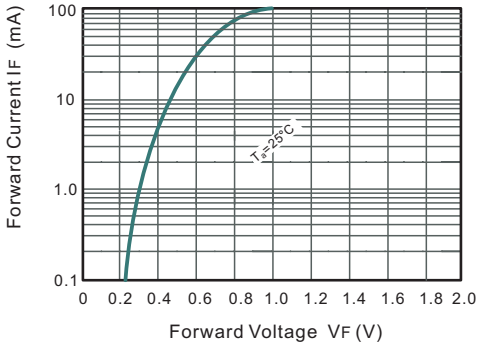
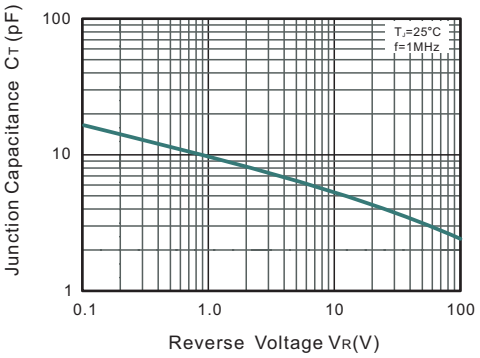


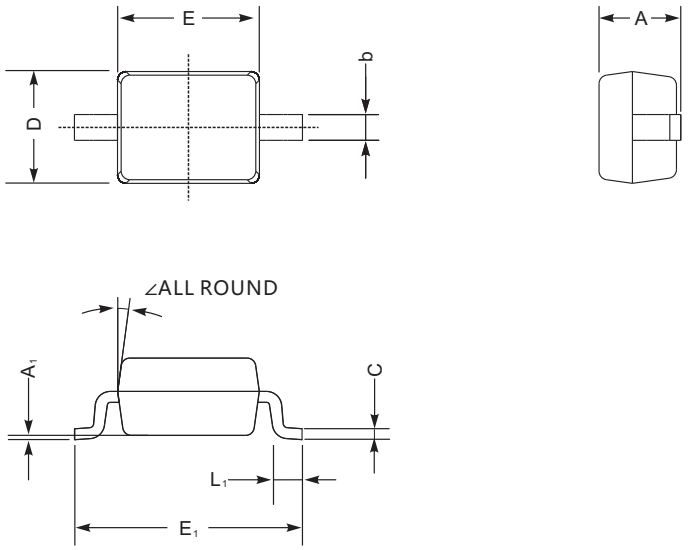
Fig.4 Typical Junction Capacitance



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

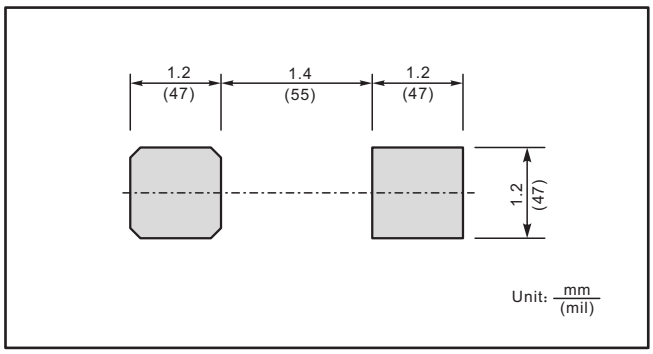
SOD-323W



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
BAT54WB	L9