

SCHOTTKY BARRIER RECTIFIERS

FEATURES

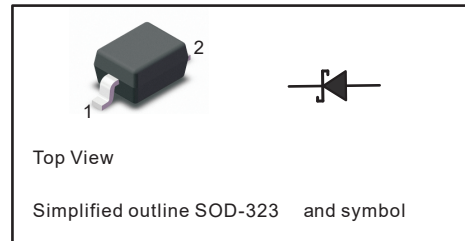
- Low Forward Voltage Drop
- Fast Switching Time
- Surface Mount Package Ideally Suited for Automated Insertion
- Lead, Halogen and Antimony Free, RoHS Compliant "Green" Device

MECHANICAL DATA

- Case: SOD-323
- 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	BAT42WS	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward Continuous Current (NOTE 1)	I_{FM}	0.2	A
Repetitive Peak Forward Current @t < 1.0s	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current @t < 10ms	I_{FSM}	2	A
Power dissipation	P_D	200	mW
Reverse Breakdown Voltage	V_{BR}	30	V
Forward Voltage (NOTE 2)	V_F	0.40 0.65 1.0	V
Peak Reverse Current	I_R	10 100	uA
Typical Junction Capacitance	C_T	10	pF
Reverse Recovery Time	t_{rr}	5	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.
2. Short duration pulse test used to minimize self-heating effect.

Typical Characteristics

Fig.1 Forward Current Derating Curve

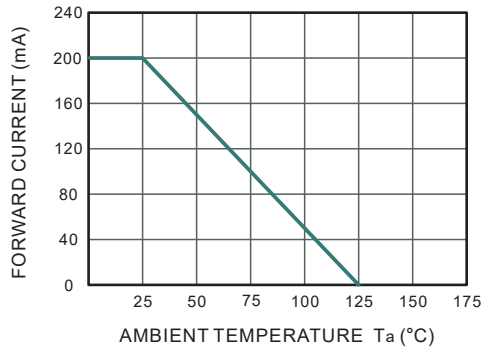


Fig.2 Typical Instaneous Reverse Characteristics

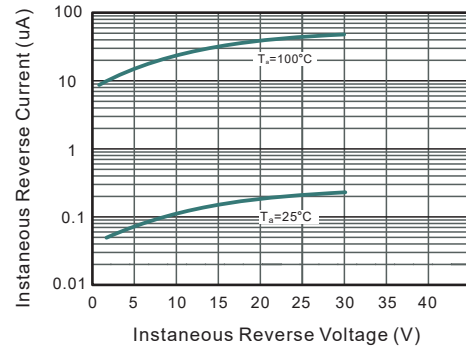


Fig.3 Typical Forward Characteristic

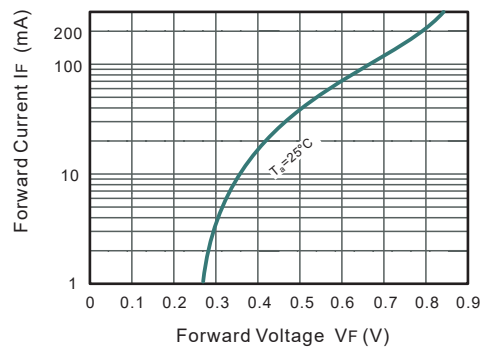
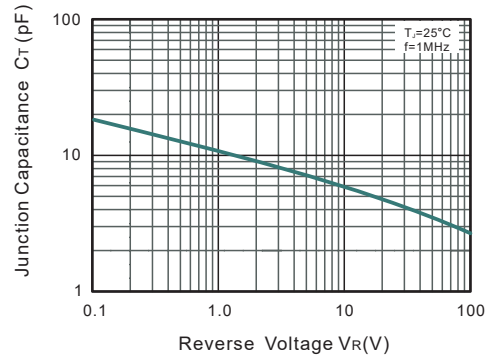


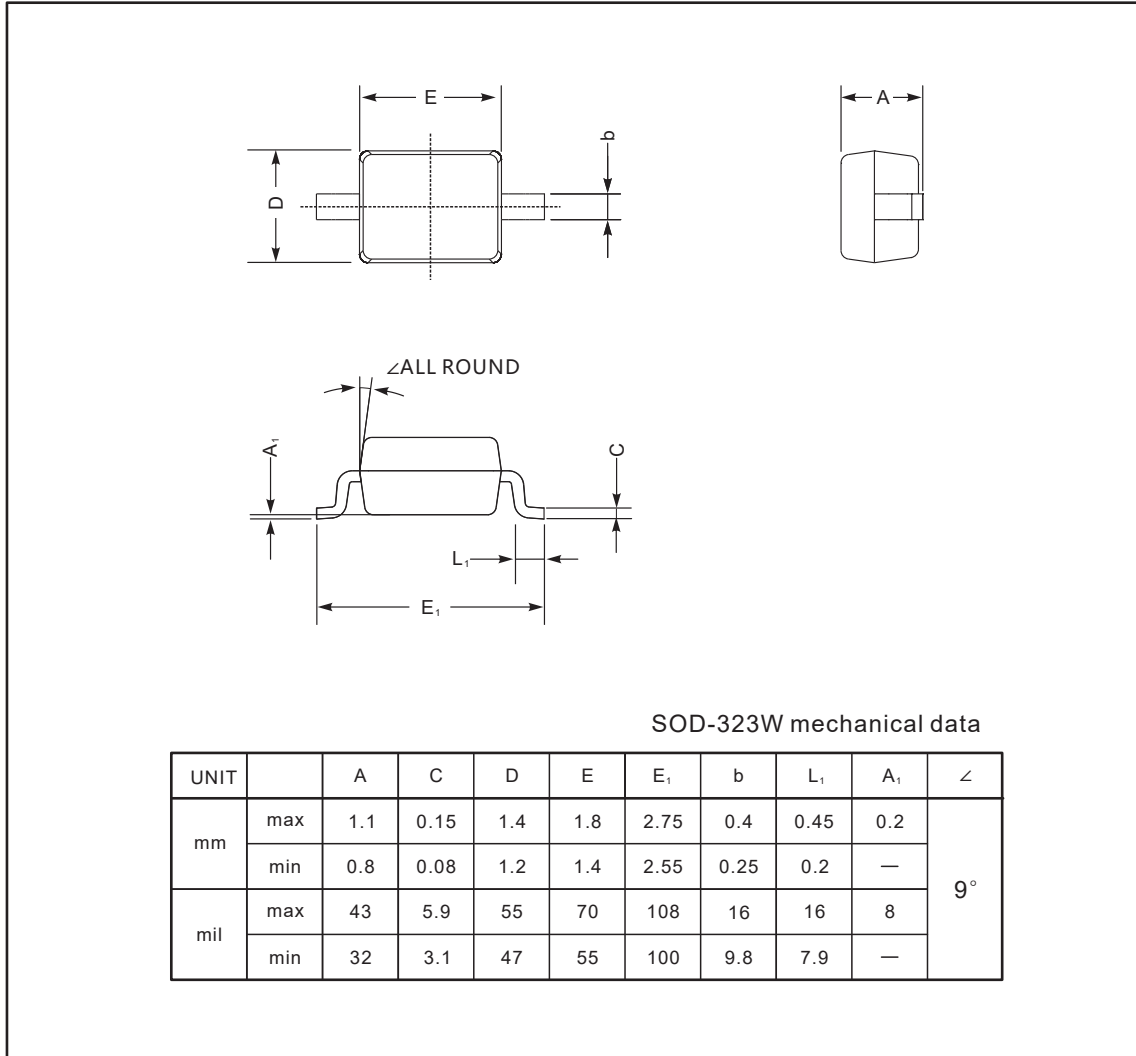
Fig.4 Typical Junction Capacitance



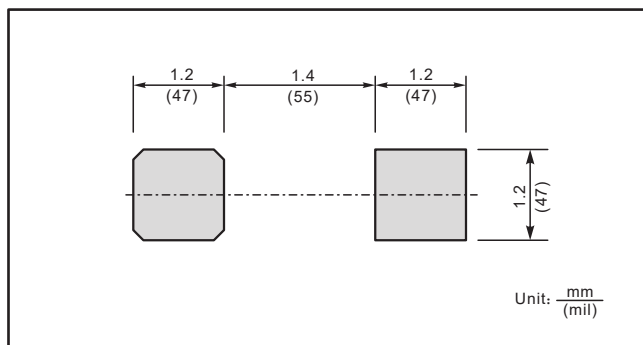
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



The recommended mounting pad size



Marking

Type number	Marking code
BAT42WS	X9

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