

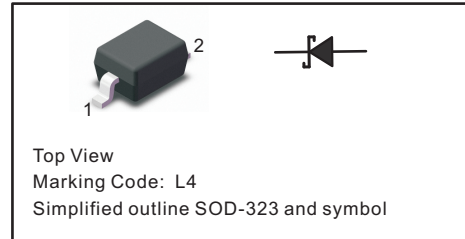
SCHOTTKY BARRIER RECTIFIERS

FEATURES

- Metal silicon junction, majority carrier conduction
- Guarding for overvoltage protection
- Low power loss, high efficiency
- High current capability
- low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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	BAT54WS	Units
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Maximum Average Forward Current at $T_a=25^{\circ}\text{C}$	I_O	0.2	A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	13	A
Maximum Instantaneous Forward Voltage	V_F	0.32 @ $I_F=0.001\text{A}$ 1.0 @ $I_F=0.1\text{A}$	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	2.0 @ $V_R=25\text{V}$	μA
Typical Thermal Resistance	$R_{\theta JA}$	435	$^{\circ}\text{C/W}$
Typical Junction Capacitance at $V_R=0\text{V}$, $f=1\text{MHz}$	C_j	60	pF
Storage and Operating Junction Temperature Range	T_j, T_{stg}	-55 ~ +125	$^{\circ}\text{C}$

NOTES:(1)P.C.B. mounted with 5*5mm copper pad areas.

Fig.1 Forward Current Derating Curve

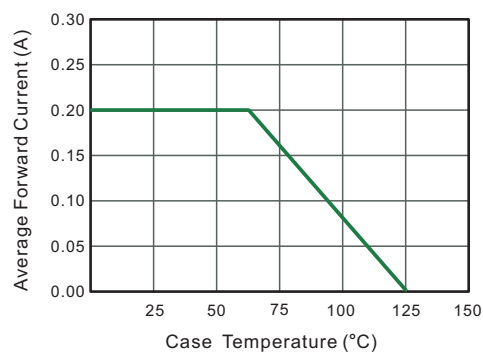


Fig.2 Typical Reverse Characteristics

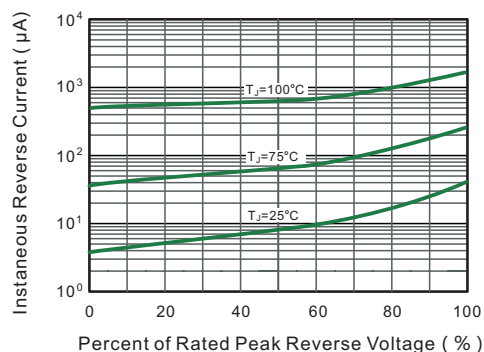


Fig.4 Typical Forward Characteristics

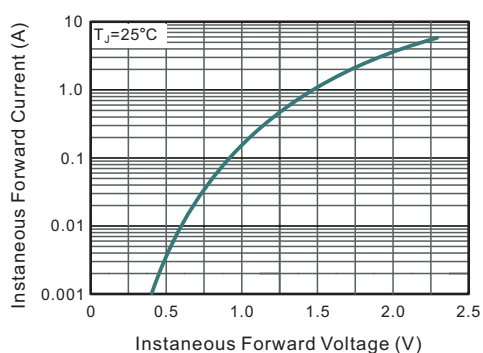


Fig.4 Typical Junction Capacitance

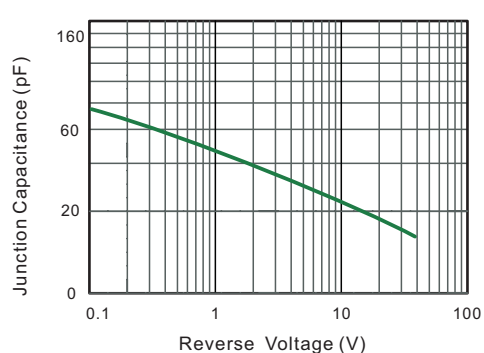


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

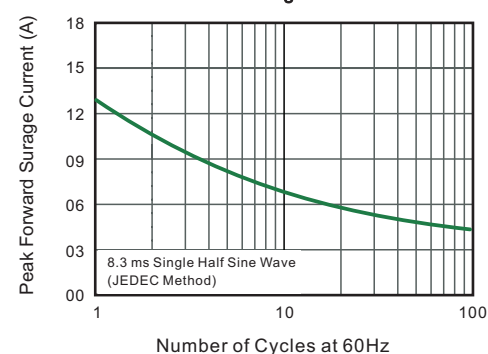
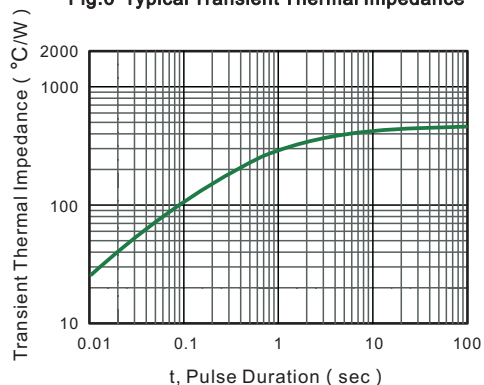


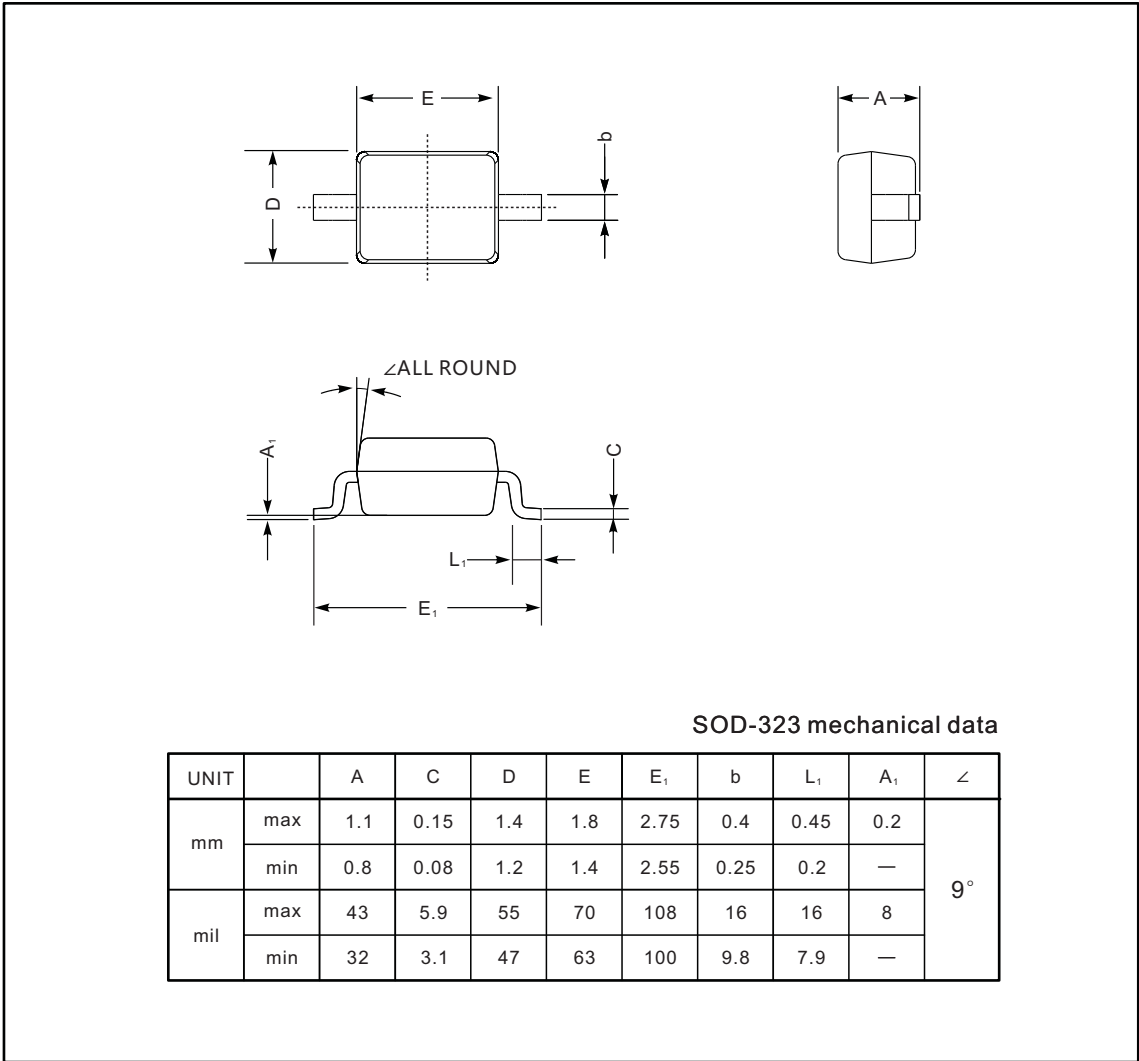
Fig.6 Typical Transient Thermal Impedance



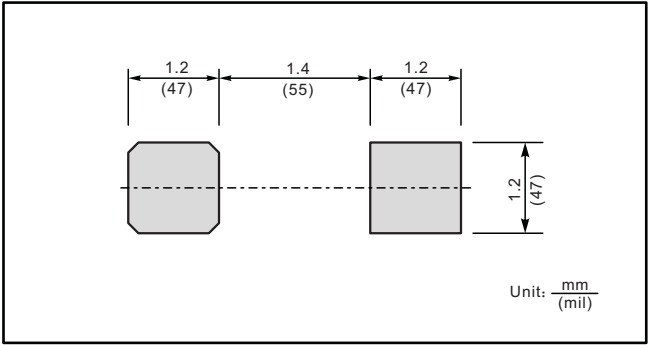
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



The recommended mounting pad size



Marking

Type number	Marking code
BAT54WS	L4