EVVOSEMI®
THINK CHANGE DO

ESD TVS MOS LDO Diode Sensor DC-DC

Product Specification

Domestic Part Number	EVBAT54W-SD
Overseas Part Number	BAT54W
Equivalent Part Number	BAT54W

"SD" means SOD-123

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

Top View
Marking Code: L4
Simplified outline SOD-123 and symbol

MECHANICAL DATA

- Case: SOD-123
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight:16mg/0.00056oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

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Parameter	Symbols	BAT54W	Units
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Maximum Average Forward Current at Ta=25℃	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 @ IF=0.001A 1.0 @ IF=0.1A	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	2.0 @VR=25V	uA
Typical Thermal Resistance	$R_{\theta JA}$	435	°C/W
Typical Junction Capacitance at V_R=0V, f=1MHz	C_j	60	pF
Storage and Operating Junction Temperature Range	T_j, T_{stg}	-55 ~ +125	°C

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

Fig.1 Forward Current Derating Curve

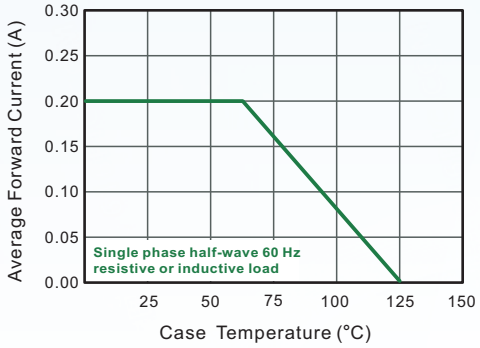


Fig.2 Typical Reverse Characteristics

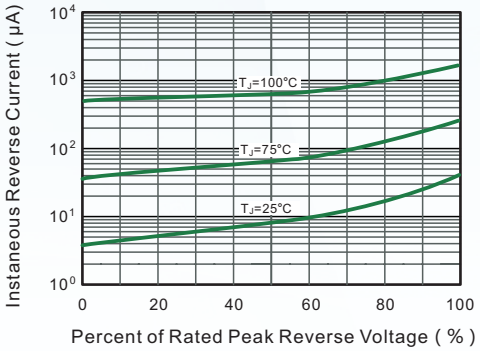


Fig.4 Typical Forward Characteristics

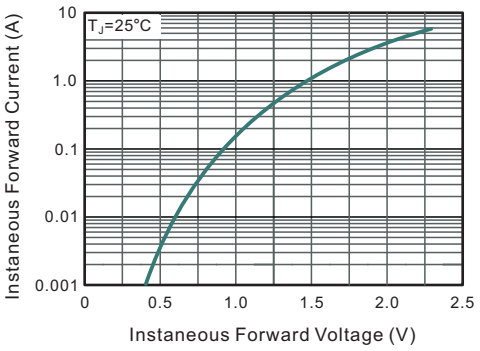


Fig.4 Typical Junction Capacitance

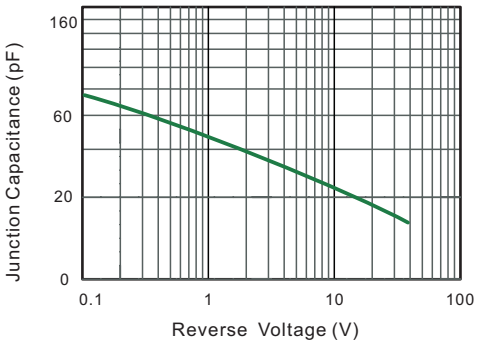


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

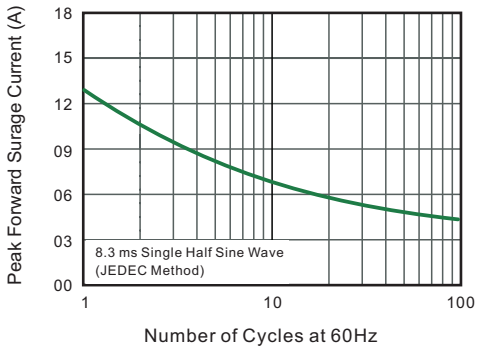
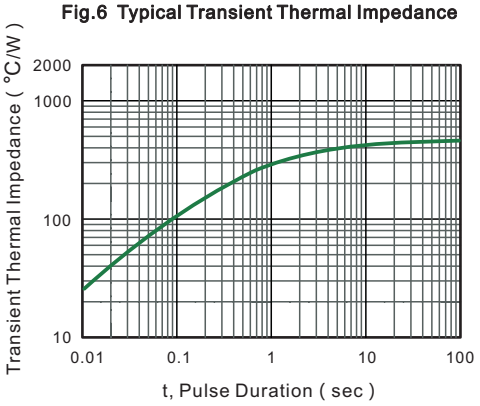


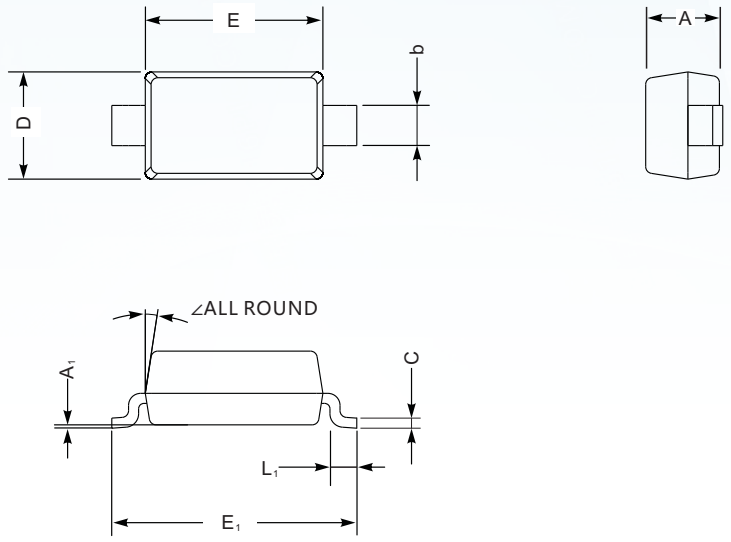
Fig.6 Typical Transient Thermal Impedance



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

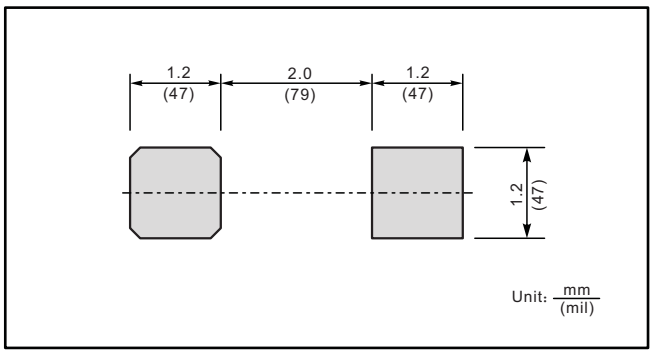
SOD-123



SOD-123 mechanical data

UNIT		A	C	D	E	E_1	L_1	b	A_1	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

The recommended mounting pad size



Marking

Type number	Marking code	Marking code
BAT54W	L4	4

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