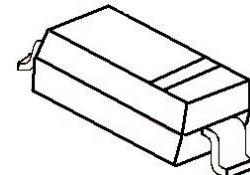


BAT54W

Plastic-Encapsulate Schottky Barrier Diode

General description

SOD-123 Plastic-Encapsulate Schottky Barrier Diode



SOD-123 Package

FEATURES

- High Current Capability
- Low Forward Voltage Drop
- Extremely Fast Switching Speed
- SOD-123 Small Outline Plastic Package
- Epoxy UL: 94V-0

Marking: L9

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	Limit	Unit
Maximum repetitive peak reverse voltage	VR _{RM}	30	V
Maximum RMS voltage	VR _M S	21	V
Maximum DC blocking voltage	V _{DC}	30	V
Maximum average forward rectified current	I _{FM}	300	mA
Peak forward surge current 8.3 ms single half sine-wave	I _{FSM}	600	mA
Typical thermal resistance	R _{θJA}	250	°C/W
Power Dissipation	PD	500	mW
Storage temperature range	T _{STG}	-50-+150	°C

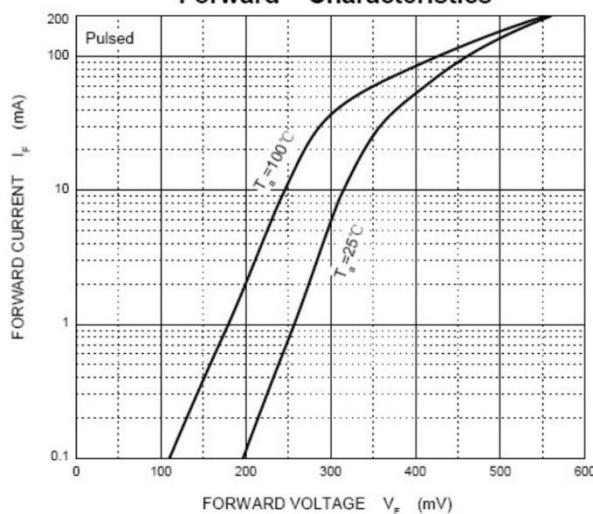
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

Parameters	Symbol	Test conditions	Min	Typ	Max	Unit
Maximum forward voltage	VF1	IF = 0.1mA			240	mV
	VF2	IF = 1.0mA			320	
	VF3	IF = 10mA			400	
	VF4	IF = 30mA			500	
	VF5	IF = 100mA			800	
Maximum reverse breakdown voltage	VR	IR=100uA	30			V
Maximum reverse current	IR	VR=25V			2.0	uA
Type junction capacitance	C _j	VR = 1.0V, f = 1MHz			10	pF

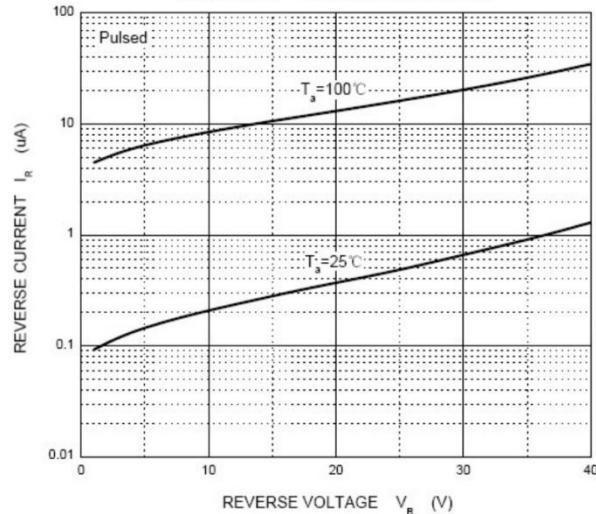
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Typical Characteristics

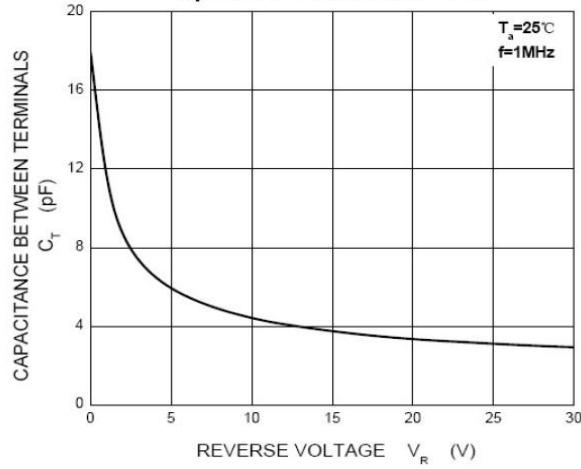
Forward Characteristics



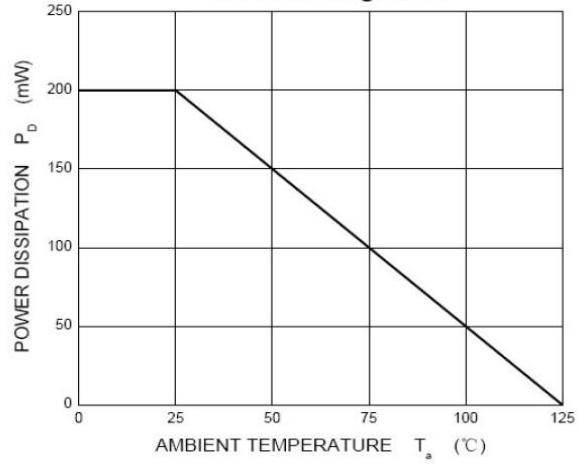
Reverse Characteristics



Capacitance Characteristics

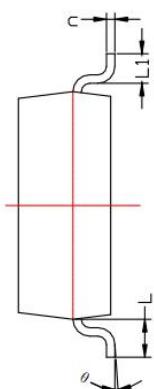
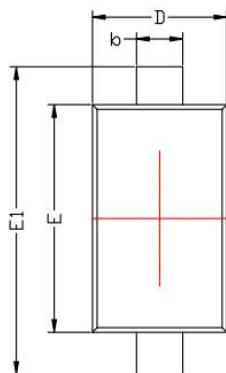


Power Derating Curve

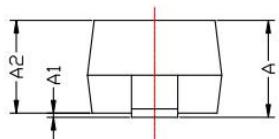


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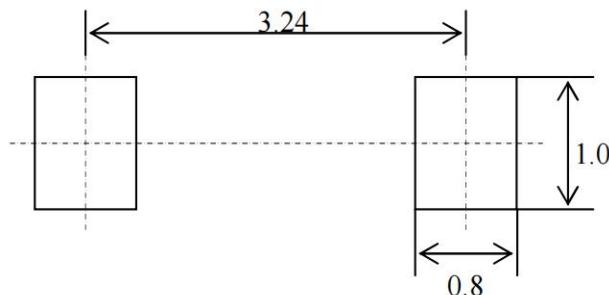
SOD-123 PACKAGE OUTLINE Plastic surface mounted package



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500REF	
L1	0.250	0.450
θ	0°	8°



Precautions: PCB Design (Recommended land dimensions for SOD-123 diode. Electrode patterns for PCBs)



All Dimensions in mm

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