BAT46W

SOD-123 Plastic-Encapsulate Schottky Barrier Diode

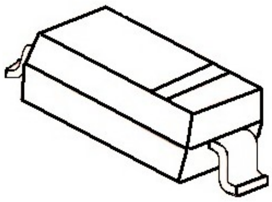
Features

- High Current Capability
- Low Forward Voltage Drop

Mechanical Data

- SOD-123 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting Position: Any

SOD-123



Marking: S9

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

Parameters	Symbol	Limit	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum average forward rectified current	I_{FM}	350	mA
Peak forward surge current 8.3 ms single half sine-wave	I_{FSM}	750	mA
Typical thermal resistance	$R_{\theta JA}$	200	℃/W
Power Dissipation	P_D	500	mW
Junction temperature	T_j	125	℃
Storage temperature range	T_{STG}	-55-+150	℃

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

Parameters	Symbol	Test conditions	Min	Typ	Max	Unit
Maximum forward voltage	V_{F1}	IF = 0.1mA			250	mV
	V_{F2}	IF = 10mA			450	
	V_{F3}	IF = 250mA			1000	
Maximum reverse breakdown voltage	V_R	IR=100uA	100			V
Maximum reverse current	I_R	VR1=1.5V			0.3	uA
		VR2=10V			0.5	
		VR3=50V			1.0	
		VR4=75V			2.0	
Type junction capacitance	C_T	VR = 0V, f = 1MHz		20		pF
		VR = 1.0V, f = 1MHz		12		

Typical Characteristics

Fig.1 Forward Characteristics

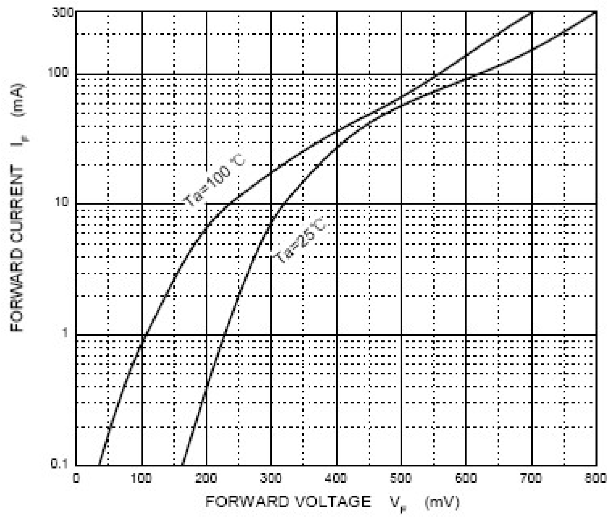


Fig.2 Reverse Characteristics

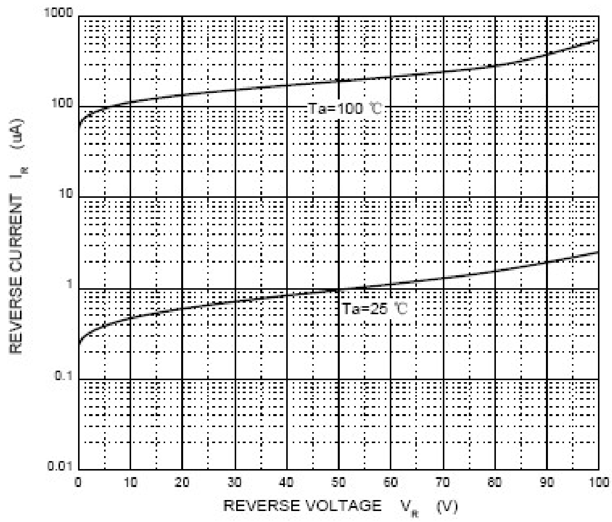


Fig.3 Capacitance Characteristics

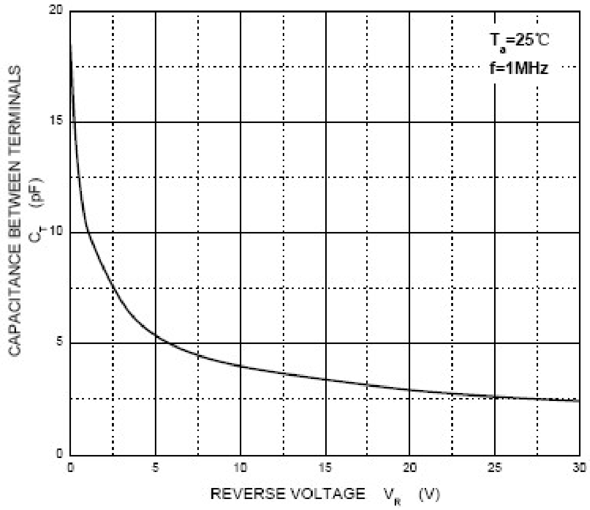
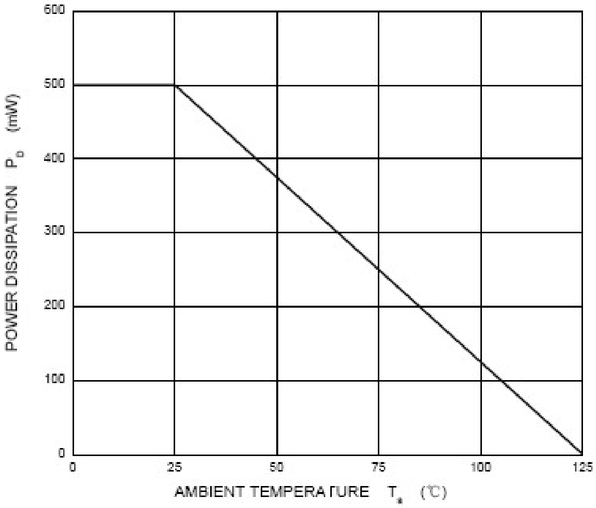
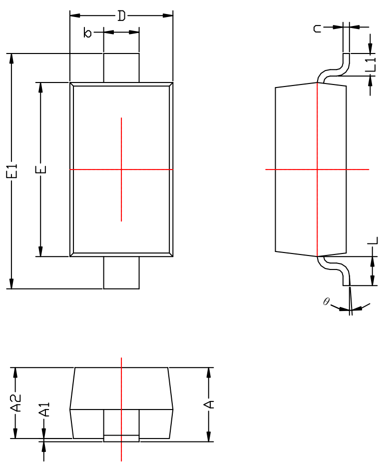


Fig.4 Power Derating Curve



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°

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