500mW SOD-123 Fast Switching Diode

Features

- 50nS; Fast switching device (TRR <50nS)
- 500mW; power dissipation of 500mW
- High stability and high reliability
- Low reverse leakage

Pb RoHS COMPLIANT

Mechanical Data

- SOD-123 Small outline plastic package
- Polarity: color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting position: any

Marking: **SOD-123**

BAV19W: A8
BAV20W: T2
BAV21W: T3

Maximum Ratings & Thermal Characteristics (T_A =25°C unless otherwise noted)

Parameters	Symbol	Value			Unit
		BAV19W	BAV20W	BAV21W	
Reverse Voltage	V_R	120	200	250	V
Peak Reverse Voltage	V_{RM}	100	150	250	V
Power Dissipation	P_D	500			mW
Operating junction temperature	Tj	150			℃
Storage temperature range	T_S	-65-+150			℃
Working Inverse Voltage	W_{IV}	75			V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	250			℃/W
Average Rectified Current	I_O	200			mA
Non-repetitive Peak Forward Current	I_{FM}	400			mA
Peak Forward Surge Current @tp=1ms; TA=25 ℃	I_{FSM}	2.5			A

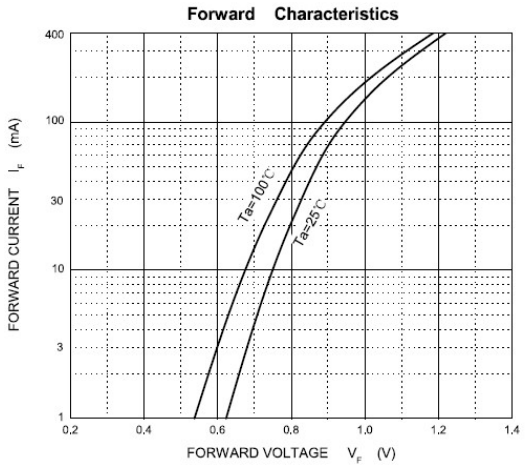
Valid provided that electrodes are kept at ambient temperature.

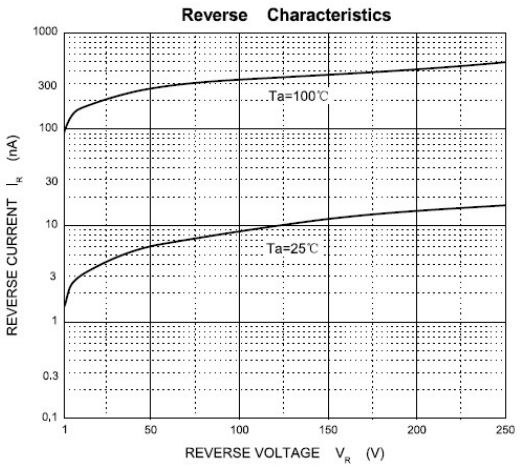
Electrical Characteristics (T_A =25°C unless otherwise noted)

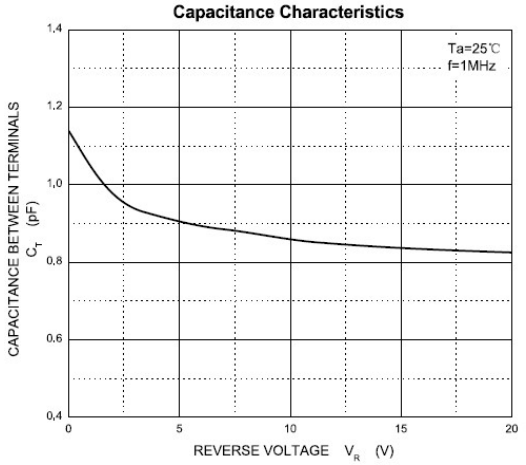
Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Reverse Voltage	V_{RB}	IB=100uA BAV19W / BAV20W / BAV21W	120 / 200 / 250		V
Reverse Leakage Current	I_R	VR=100V BAV19W; VR=150V BAV20W; VR=200V BAV21W		0.1	uA
Forward Voltage	V_F	IF=100mA		1.00	V
		IF=200mA		1.25	
Reverse Recovery Time	T_{RR}	IF = IR= 30mA, Irr=3mA, RL=100Ω		50	nS
Capacitance	C_j	VR=0V, f=1MHZ		5	pF

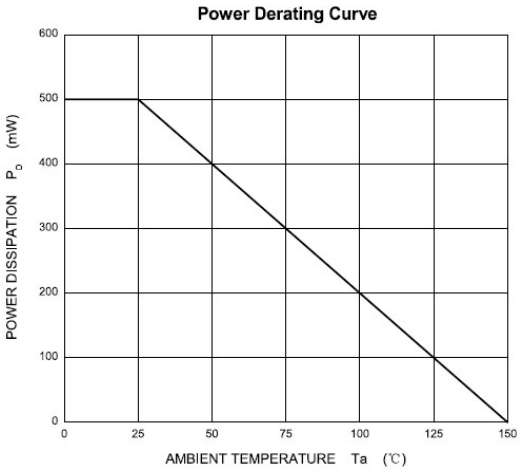
Ratings and Characteristics Curves

(T_A = 25℃ unless otherwise noted)



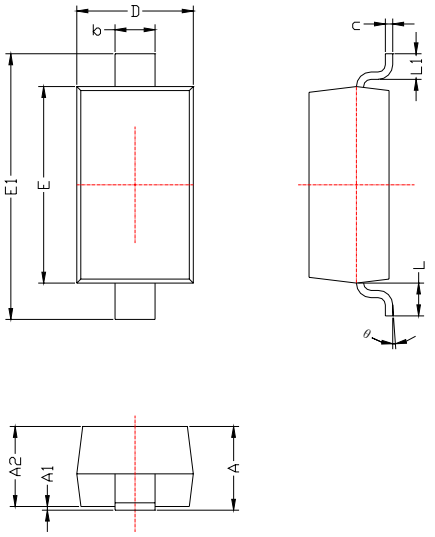






Package Outline Dimensions

millimeters



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°

Revision History

Document Version	Date of release	Description of changes
Rev.A	2017.03.31	First issue

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