Features

High breakdown voltage.
Low turn-on voltage.
Guard ring construction for transient protection.



SOD-323



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BAT46JFILM	SOD-323	S9	3000

Maximum Ratings (Ta=25°C unless otherwise noted)

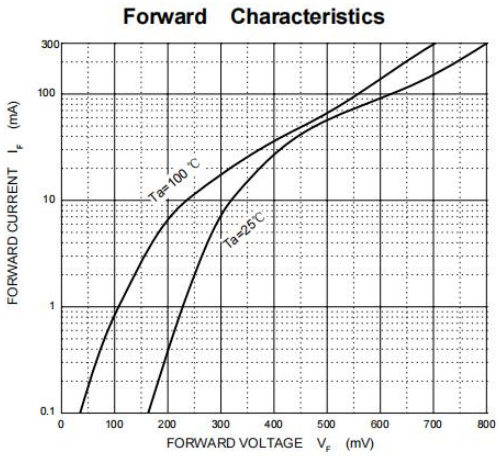
Symbol	Parameter	Value	Unit
V_{RRM} V_{RWM}	Peak Repetitive Peak Reverse Voltage Working Peak Reverse Voltage	100	V
I_{FM}	Forward Continuous Current	150	mA
I_{FRM}	Repetitive peak forward current (Note 1) @tp<1.0s, Duty Cycle < 50%	350	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current@8.3mS	750	mA
P_d	Power Dissipation	150	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	667	°C/W
T_J	Operation Junction Temperature Range	-40~+125	°C
T_{STG}	Storage Temperature Range	-55~+150	°C

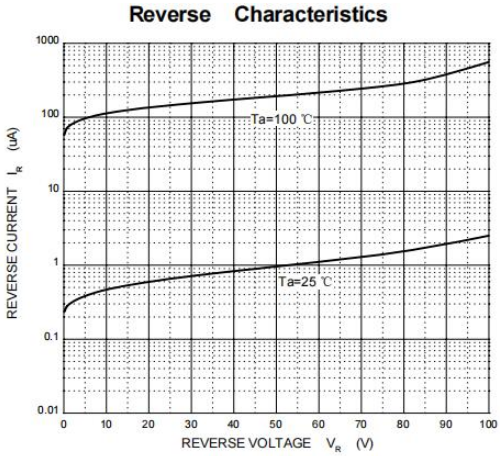
Electrical Characteristics (Ta=25°C unless otherwise specified)

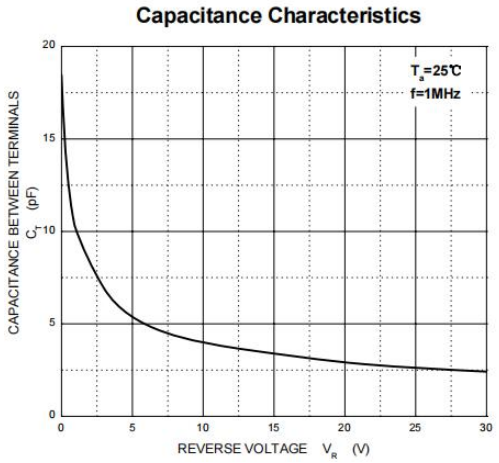
Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
$V_{(BR)}$	Reverse breakdown voltage	I_R=100μA	100			V
I_R	Reverse voltage leakage current	V_{R1}=1.5V			0.3	μA
		V_{R2}=10V			0.5	μA
		V_{R3}=50V			1.0	μA
		V_{R4}=75V			2.0	μA
$V_{F(1)}$	Forward voltage(Note 2)	I_F=0.1mA			0.25	V
$V_{F(2)}$		I_F=10mA			0.45	V
$V_{F(3)}$		I_F=250mA			1.00	V
C_T	Diode capacitance	V_R=0V, f=1.0MHz		20		pF
		V_R=1V, f=1.0MHz		12		pF

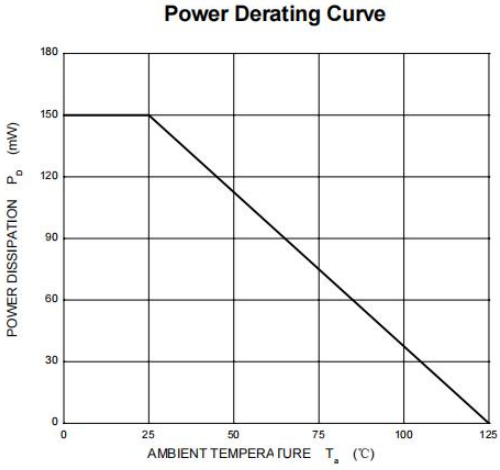
Notes: 1. Part mounted on FR-4 board with recommended pad layout.
2. Short duration pulse test used to minimize self-heating effect.

Typical Characteristics

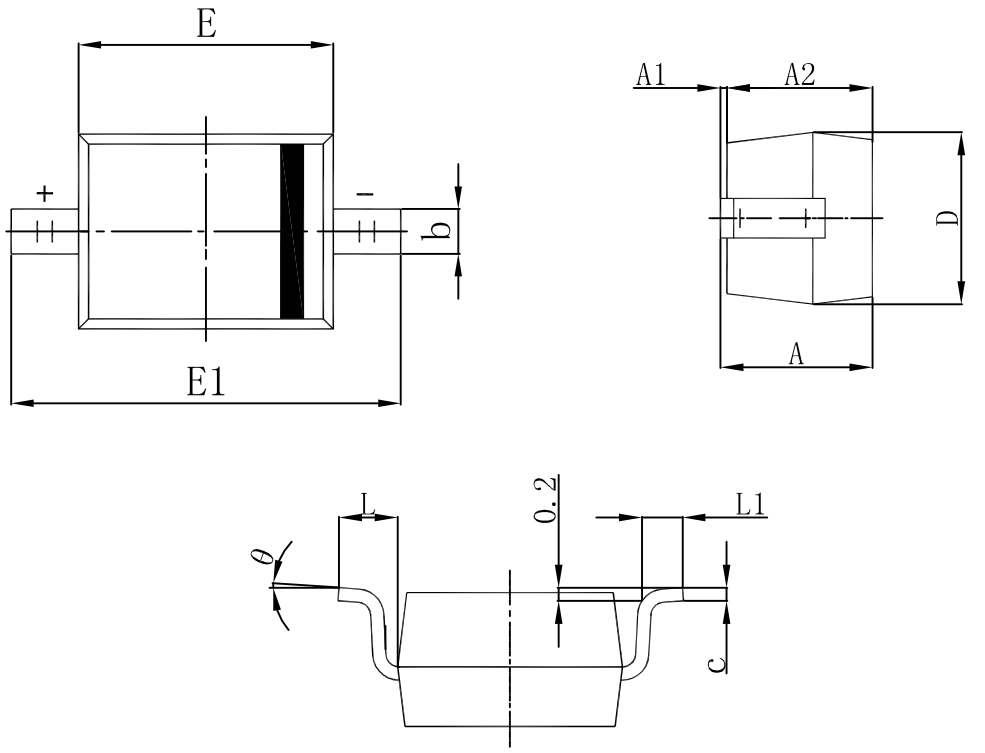








SOD-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A		1.100		0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.750	0.098	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

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