

BAS316

Plastic-Encapsulate Switching Diode

ROHS

Features

- ◆ High Switching Speed

Mechanical Data

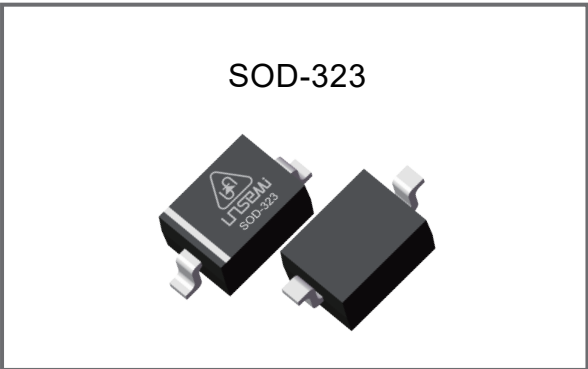
- ◆ Case: SOD-323
- ◆ Molding Compound Flammability Rating : UL 94V-O
- ◆ Polarity: Color Band Denotes Cathode End
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Device Marking: A6

Mechanical Characteristics

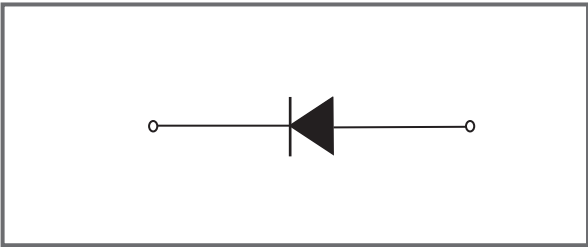
Parameter	Symbol	Value	Units
Repetitive Peak Reverse Voltage	VRRM	85	V
Reverse Voltage	VR	85	V
Average Rectified Output Current	Io	0.25	A
Non-Repetitive Peak Forward Surge Current @t=8.3ms	IFSM	2.0	A
Power Dissipation	Pd	0.25	W
Thermal Resistance Junction to Ambient	RθJA	500	°C/W
Junction Temperature Range	TJ	-55~+150	°C
Storage Temperature Range	Tstg	-55~+150	°C



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Functional Diagram



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

Parameter	Symbol	Test Conditions	Value		Units
			Min.	Max.	
Reverse Current	I _R	V _R =25V	-	30	nA
		V _R =75V	-	1.0	μA
Forward Voltage	V _F	I _F =1mA	-	0.715	V
		I _F =10mA	-	0.855	V
		I _F =50mA	-	1.0	V
		I _F =150mA	-	1.25	V
Capacitance Between Terminals	C _T	V _R =0V, f=1MHz	-	1.5	pF
Reverse Recovery Time	t _{rr}	I _F =I _R =10mA, I _{rr} =0.1X I _R	-	4.0	ns

Electrical Characteristics Curves

Fig.1 Forward Characteristics

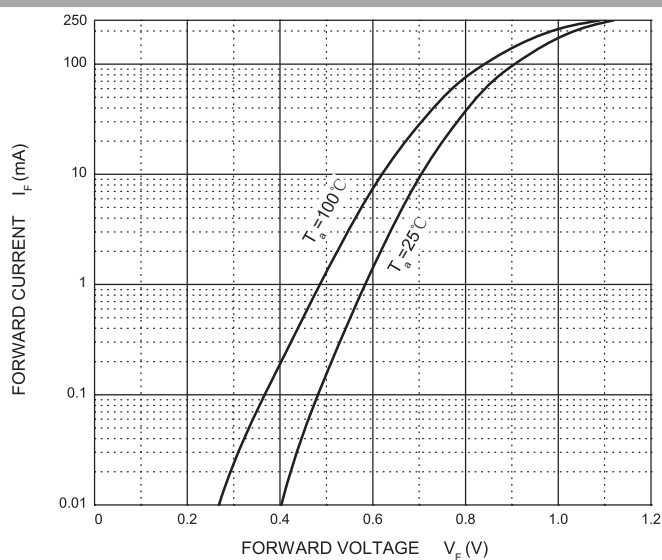


Fig.2 Reverse Characteristics

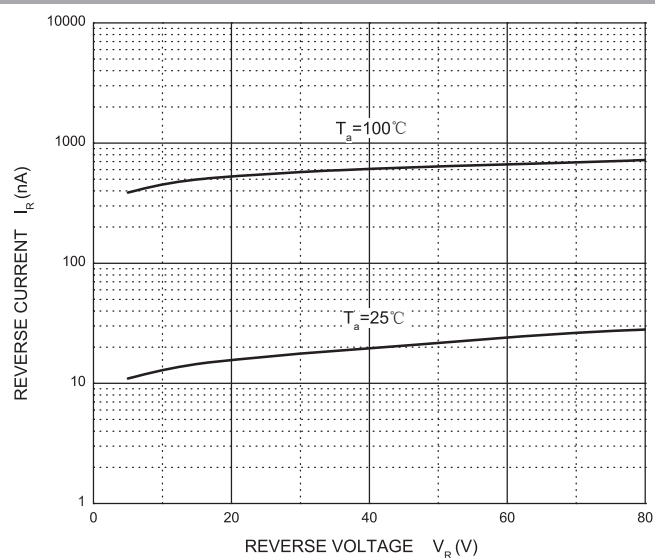


Fig.3 Capacitance Characteristics

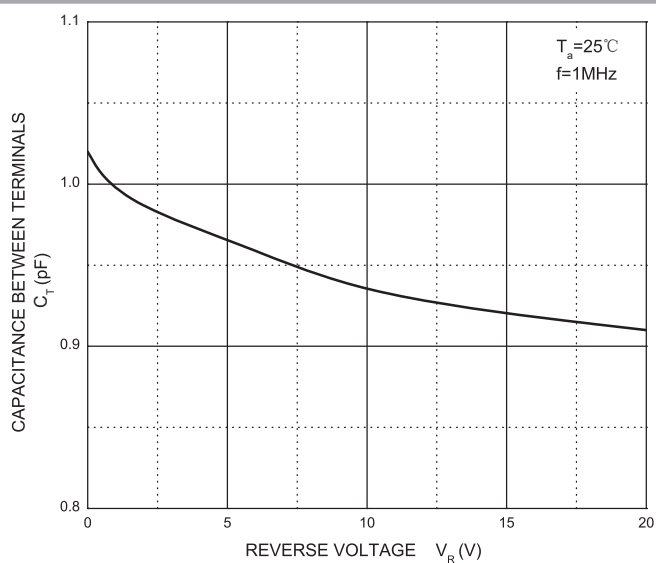
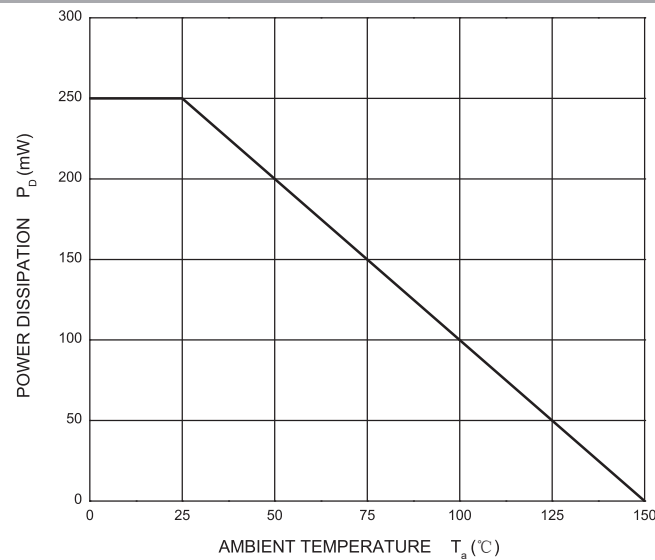
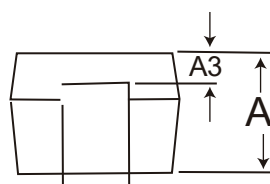
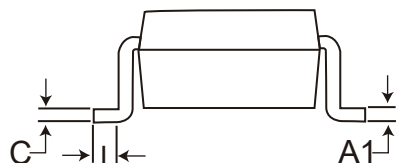
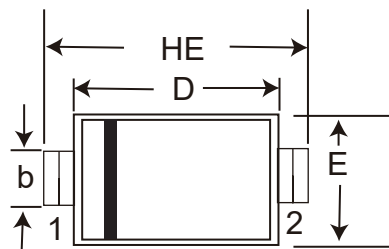


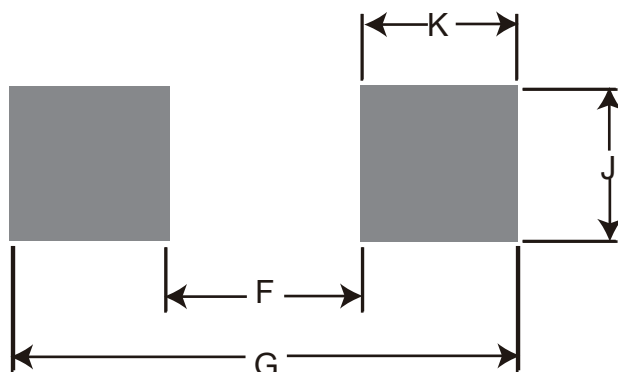
Fig. 4 Power Derating Curve



SOD-323 Package Outline & Dimensions



Soldering Footprint



Symbol	Millimeters			Inches		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	0.80	0.90	1.00	0.031	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A3	0.15REF			0.006REF		
b	0.25	0.32	0.40	0.010	0.012	0.016
c	0.089	0.12	0.177	0.003	0.005	0.007
D	1.60	1.70	1.80	0.062	0.066	0.070
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
HE	2.30	2.50	2.70	0.090	0.098	0.105

Symbol	Millimeters	Inches
F	1.60	0.063
G	2.85	0.112
J	0.83	0.033
K	0.63	0.025

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