



Features

Fast Switching Speed:max.50nS.

Continuous Reverse Voltage:max.200V.

Low Leakage Current: 100nA at Room Temperature. Surface Mount Package Ideally Suited for Automatic Insertion.



SOD-323



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BAS321-QX	SOD-323	A7	3000

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

Symbol	Parameter	Value	Unit
V_{RM}	Non-repetitive Peak Reverse Voltage	250	V
V_{RRM}	Peak Repetitive Peak Reverse Voltage	200	V
V_{RWM}	Working Peak Reverse Voltage		
V_R	DC Blocking Voltage		
I_{FM}	Forward Continuous Current(Note 1)	250	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current@t=1μS	4.5	A
I_{FRM}	Repetitive Peak Forward Current(Note 1)	1	A
P_d	Power Dissipation(Note 1)	325	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient(Note 1)	385	°C/W
T_J	Operation Junction Temperature Range	-40~+150	°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(Note 2)	$I_R=100\mu A$	250			V
I_R	Reverse current(Note 2)	$V_R=200V$			100	nA
		$V_R=200V, T_J=150^\circ C$			100	μA
V_F	Forward voltage	$I_F=100mA$			1.1	V
		$I_F=100mA$			1.25	V
C_T	Capacitance Between Terminals	$V_R=0V, f=1MHz$		5		pF
t_{rr}	Reverse recovery time	$I_F=I_R=30mA$ $I_{rr}=0.1I_R, R_L=100\Omega$			50	nS

Notes: 1. Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com>.

2. Short duration pulse test used to minimize self-heating effect.



Typical Characteristics

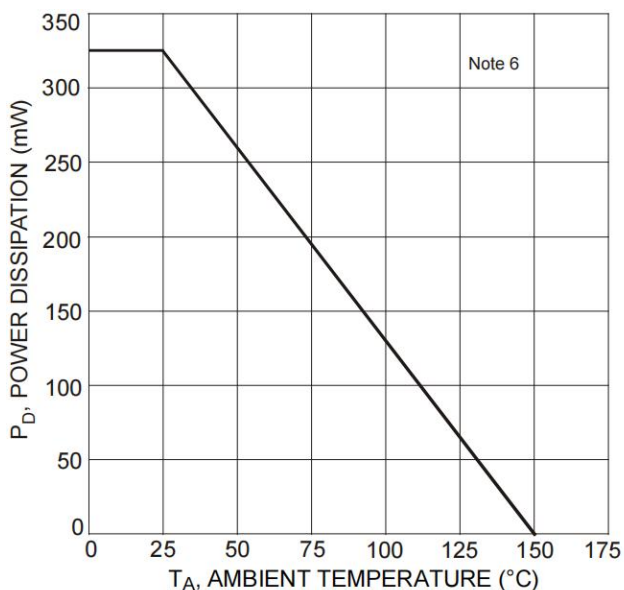


Fig 1. Power Derating Curve

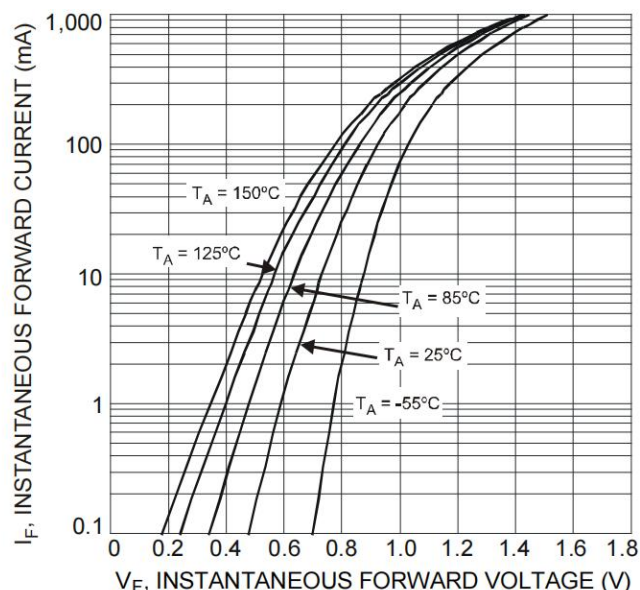


Fig 2. Typical Forward Characteristics

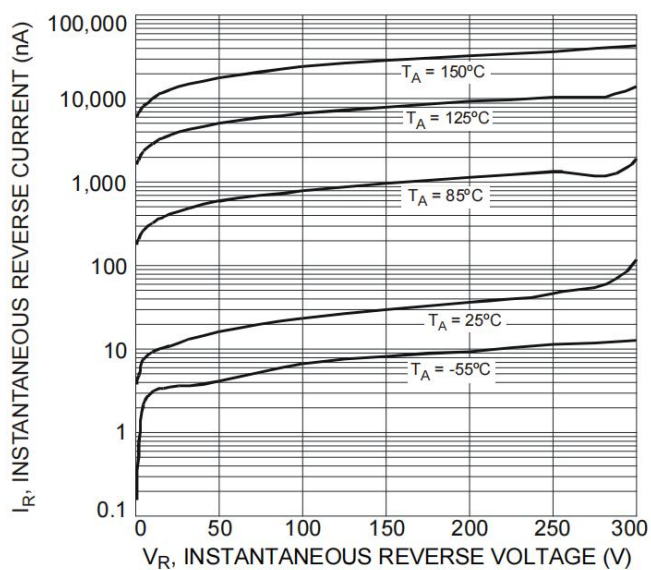


Fig 3. Typical Reverse Characteristics

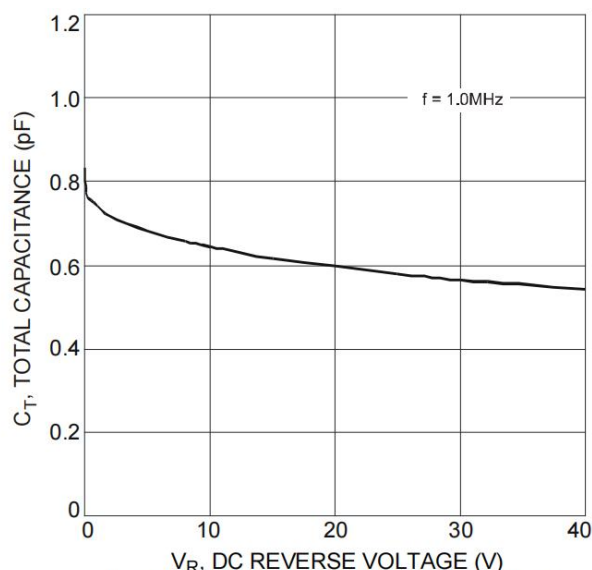
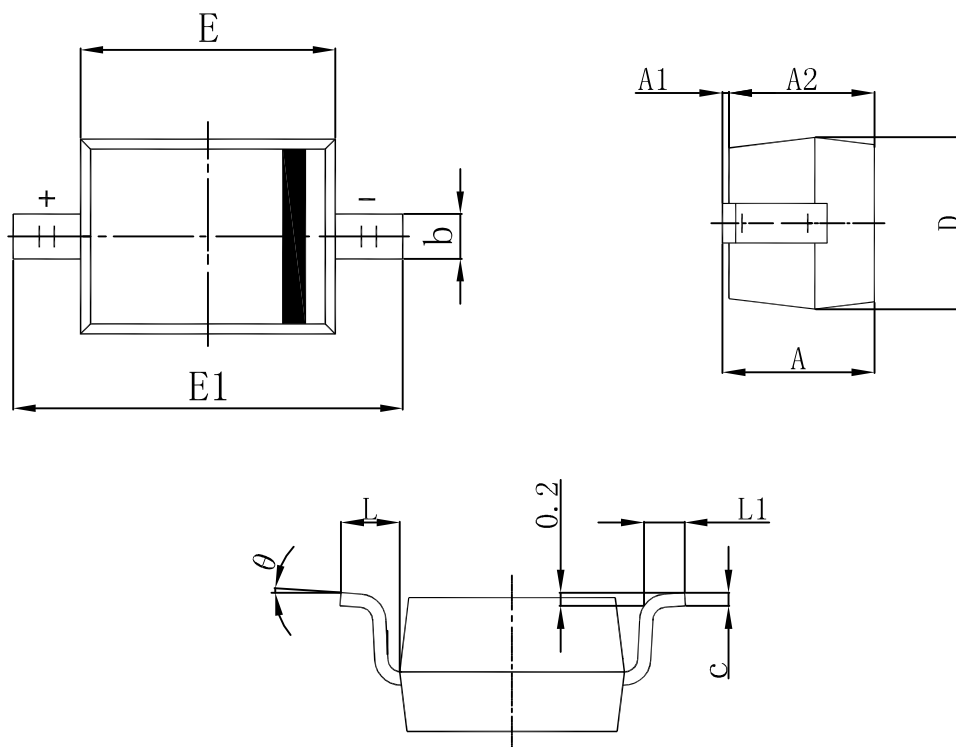


Fig 4. Total Capacitance vs. Reverse Voltage



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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