

Features

- Very Small Plastic Package
- High Switching Speed



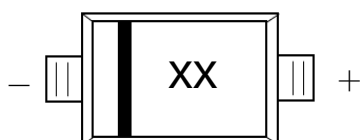
SOD-323 top view



Schematic diagram

Applications

- High-Speed Switching in e.g. Surface Mounted Circuits



Marking and pin assignment



Pb-Free


RoHS

Halogen-Free

Maximum Ratings($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_R	Reverse Voltage	130	V
V_{RRM}	Peak Repetitive Reverse Voltage		
I_O	Forward Current	215	A
I_{FSM}	Non-repetitive Peak Forward Surge Current@t= 8.3ms	2.0	A
P_D	Power Dissipation	250	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	500	$^{\circ}\text{C/W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$ unless otherwise specified)

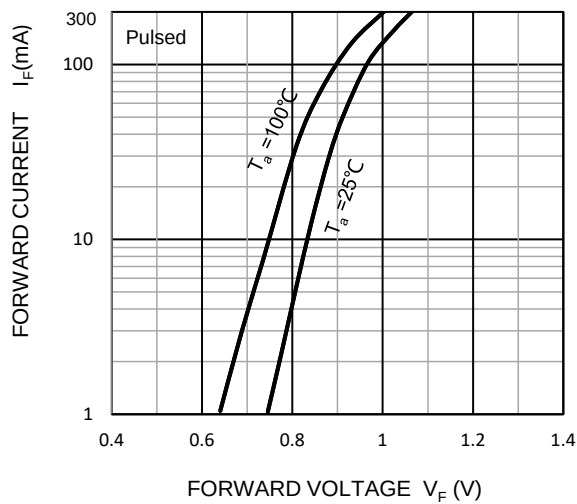
Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)}$	Reverse voltage	$I_R=100\mu\text{A}$	130	--	--	V
I_R	Reverse current	$V_R=75\text{V}$	--	--	5	nA
V_{F1}	Forward voltage	$I_F=1\text{mA}$	--	--	0.85	V
V_{F2}		$I_F=10\text{mA}$	--	--	0.95	V
V_{F3}		$I_F=50\text{mA}$	--	--	1.00	V
V_{F4}		$I_F=150\text{mA}$	--	--	1.10	V
C_{tot}	Capacitance Between Terminals	$V_R=0\text{V}, f=1\text{MHz}$	--	2	--	pF
t_{rr}	Reverse recovery time	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$	--	--	3	μs

Ordering Information (Example)

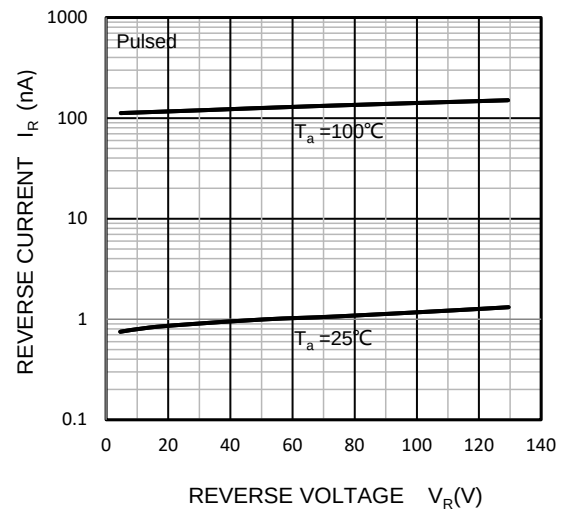
Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
BAV316	SOD-323	XX	3,000	45,000	180,000	7"reel

Typical Characteristics

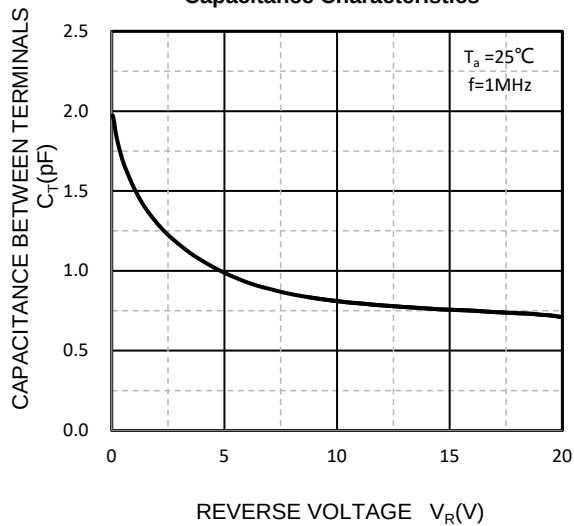
Forward Characteristics



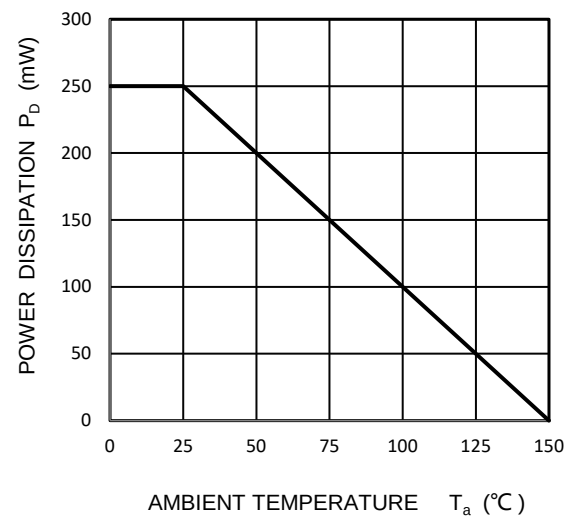
Reverse Characteristics



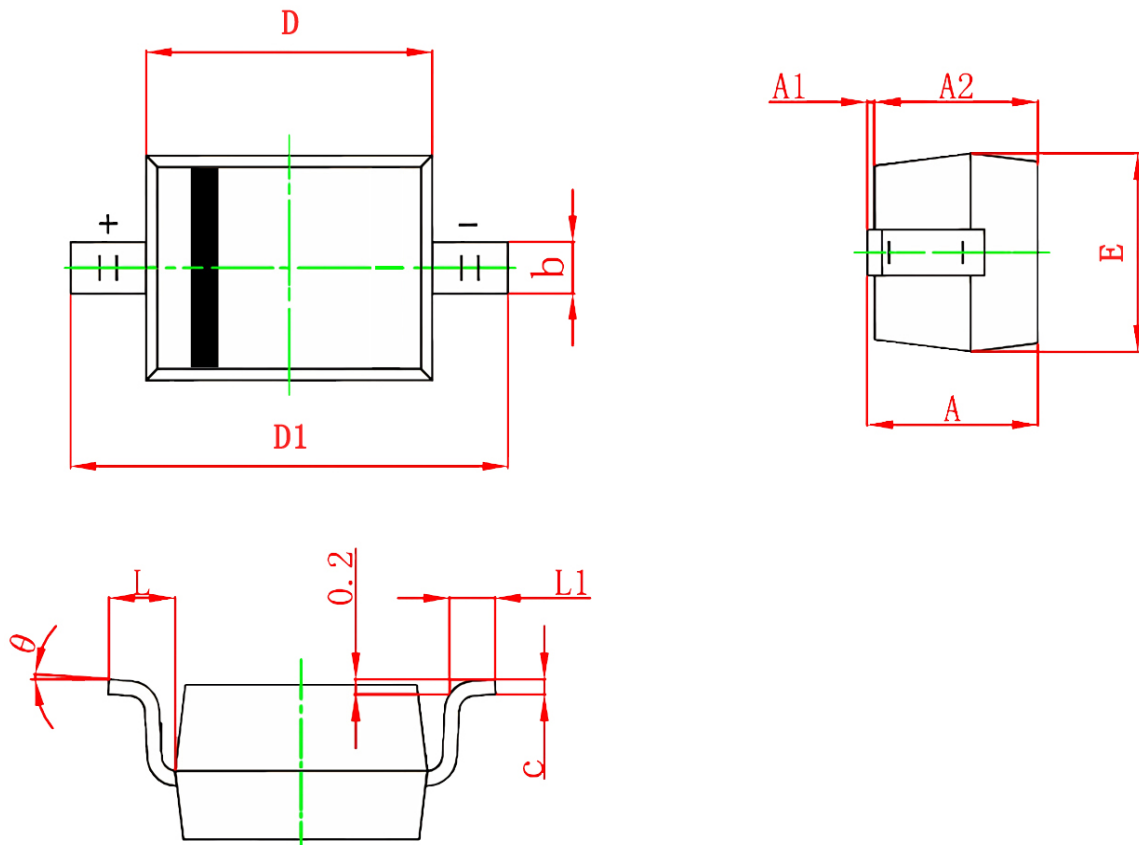
Capacitance Characteristics



Power Derating Curve



SOD-323 Package information



Symbol	Dimensions in Millimeters(mm)		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	1.600	1.800	0.063	0.071
D1	2.500	2.750	0.098	0.108
E	1.200	1.400	0.047	0.055
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°