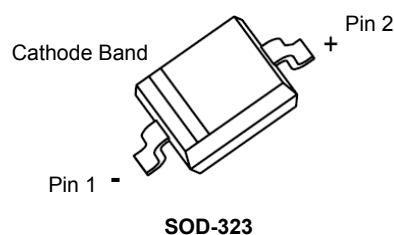


Features

- Low Forward Voltage Drop
- Very Small SMD Package

Applications

- Low Voltage Rectification
- High Efficiency DC/DC Conversion
- Switch Mode Power Supply
- Inverse Polarity Protection
- Low Power Consumption Applications



Schematic Diagram

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	20	V
Working Peak Reverse Voltage	V_{RWM}		
RMS Reverse Voltage	$V_{R(RMS)}$	14	V
Continuous Forward Current	I_F	2	A
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	9	A
Power Dissipation	P_D	Note1 250	mW
		Note2 480	
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	Note1 400	$^\circ\text{C/W}$
		Note2 208	
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$

1. Device mounted on an FR4 PCB, single-sided copper, tin-plated and standard footprint.

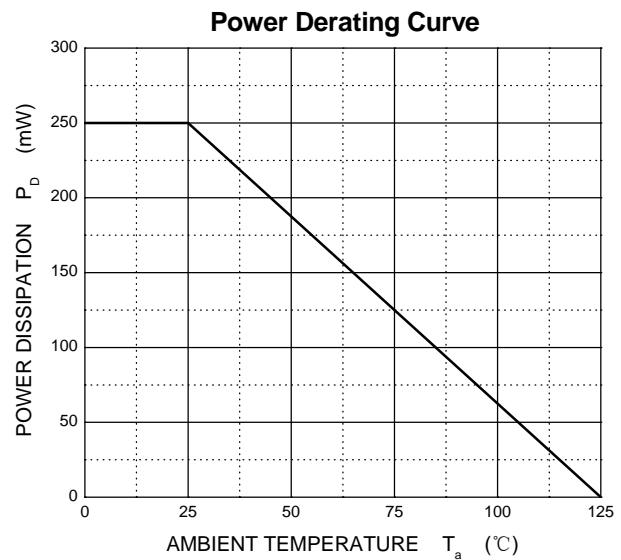
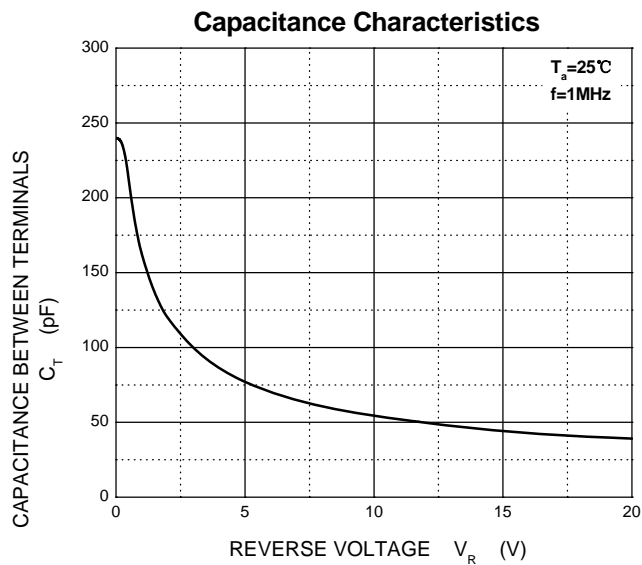
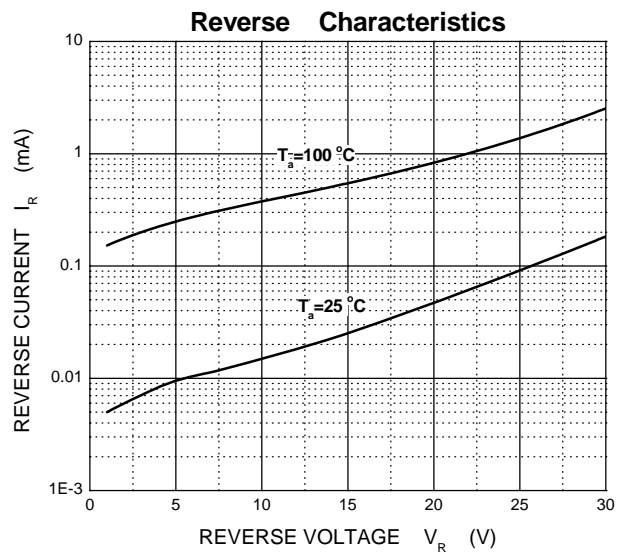
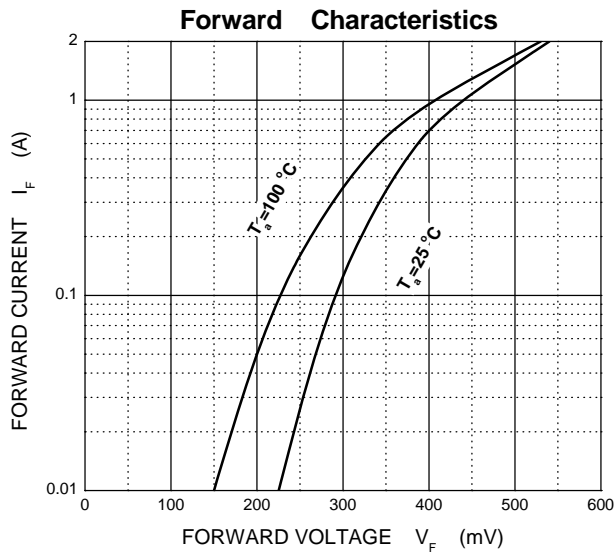
2. Device mounted on an FR4 PCB with copper pad 10 x 10 mm.

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

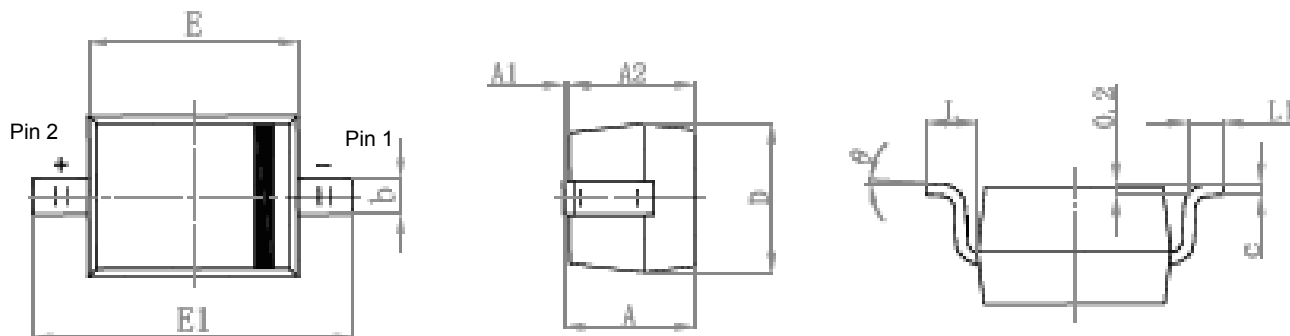
Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=1\text{mA}$	20		V
Reverse Current	I_R	$V_R=10\text{V}$		80	μA
		$V_R=20\text{V}$		100	
Forward Voltage	V_F^*	$I_F=1\text{A}$		0.45	V
		$I_F=2\text{A}$		0.55	
Total Capacitance	C_{tot}	$V_R=4\text{V}, f=1\text{MHz}$		120	pF

*Pulse test: $t_p \leq 300 \mu\text{s}$; $\delta \leq 0.02$.

Typical Characteristic Curves



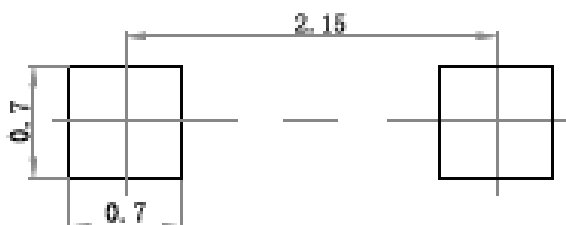
Package Outline Dimensions SOD-323



Pin 1 = Cathode
Pin 2 = Anode
Marking bar indicates the cathode.

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
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	2.550	2.750	0.100	0.108
L	0.475 REF.		0.019 REF.	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.