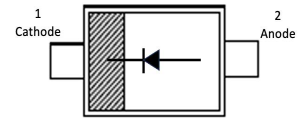


Features

- Fast switching speed
- Ultra-small surface mount package
- For general purpose switching applications
- High conductance



SOD-323



Schematic Diagram

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

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Forward Continuous Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Current ($t=1\mu\text{s}$)	I_{FSM}	2	A
Non-Repetitive Peak Forward Current ($t=1\text{s}$)		1	
Power Dissipation	P_D	200	mW
Operating and Storage Temperature Range	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Thermal Resistance from Max Junction to Ambient ¹	$R_{\theta JA}$	625	$^\circ\text{C/W}$

Note:

1. Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

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

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=1\mu\text{A}$	75	-	V
Peak Reverse Current	I_R	$V_R=20\text{V}$	-	25	nA
		$V_R=75\text{V}$	-	1	uA
		$V_R=25\text{V}, T_J=150^\circ\text{C}$	-	30	
		$V_R=75\text{V}, T_J=150^\circ\text{C}$	-	50	
Forward Voltage	V_F	$I_F=1\text{mA}$	-	0.715	V
		$I_F=10\text{mA}$	-	0.855	
		$I_F=50\text{mA}$	-	1	
		$I_F=150\text{mA}$	-	1.25	
Total Capacitance	C_T	$V_R=0\text{V}, F=1\text{MHz}$	-	2	pF
Reverse Recovery Time	t_{rr}	$I_F=10\text{mA}, V_R=6\text{V}, I_{RR}=0.1*I_R, R_L=100\Omega$	-	4	nS

Electrical Characteristic Curve

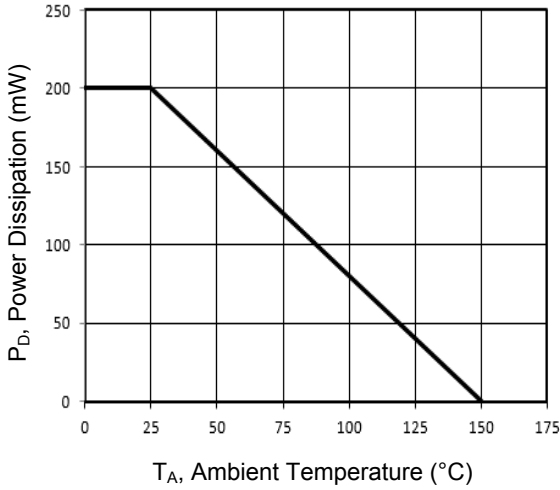


Figure 1. Power Derating Curve

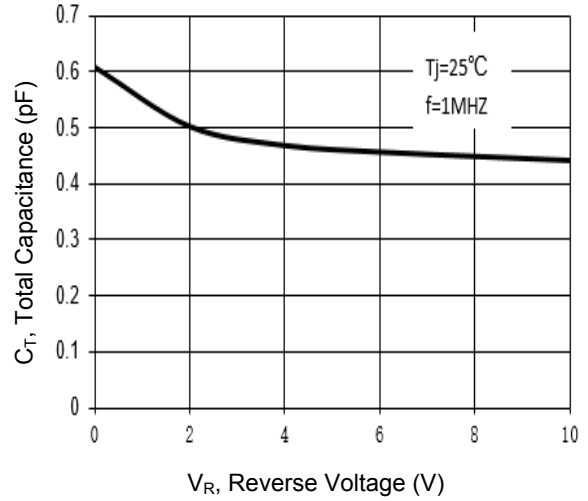


Figure 2. Capacitance Characteristics

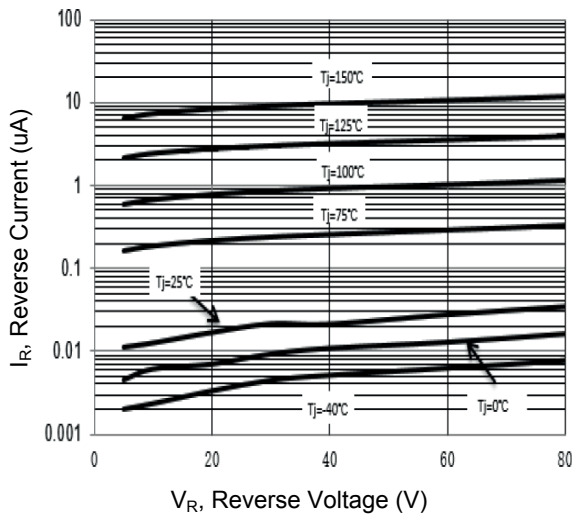


Figure 3. Reverse Characteristics

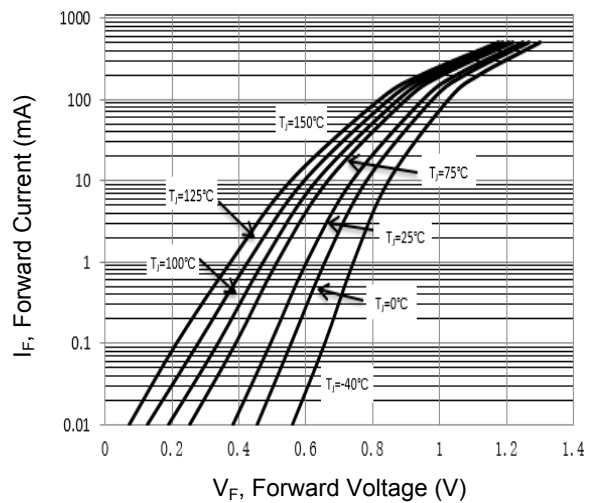
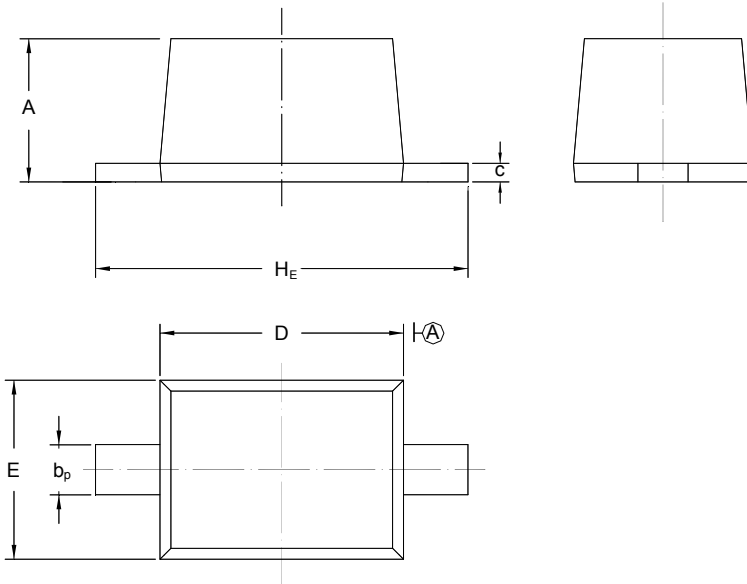


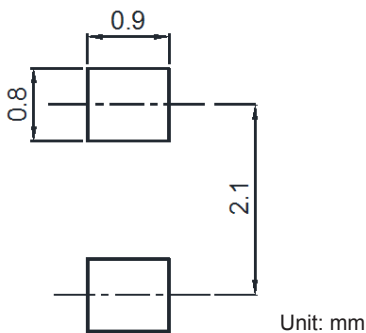
Figure 4. Forward Characteristics

Package Outline Dimensions (SOD-323)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.80	1.10	0.031	0.043
b _p	0.25	0.40	0.010	0.016
C	0.10	0.15	0.004	0.006
D	1.60	1.80	0.063	0.071
E	1.15	1.35	0.045	0.053
H _E	2.30	2.80	0.091	0.110

Recommended Pad Layout



Order Information

Device	Package	Marking Code	Carrier	Quantity
BAV16WS	SOD-323	W2	Tape & Reel	3,000pcs / Reel