



# BAV16WS

## Silicon Epitaxial Planar Switching Diode

### Features

- Small Package
- Low Reverse Current
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion

SOD-323



1.Cathode —|<— 2.Anode

Marking Code: T6

### Absolute Maximum Ratings at $T_A = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Working Peak Reverse Voltage	$V_{RWM}$	100	V
DC Reverse Voltage	$V_R$	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	71	V
Forward Continuous Current	$I_{FM}$	300	mA
Average Rectified Output Current	$I_O$	150	mA
Non-repetitive Peak Forward Surge Current at $t = 8.3\text{ ms}$	$I_{FSM}$	2	A
Maximum Power Dissipation	$P_D$	200	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Operating Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

### Characteristics at $T_A = 25\text{ }^\circ\text{C}$

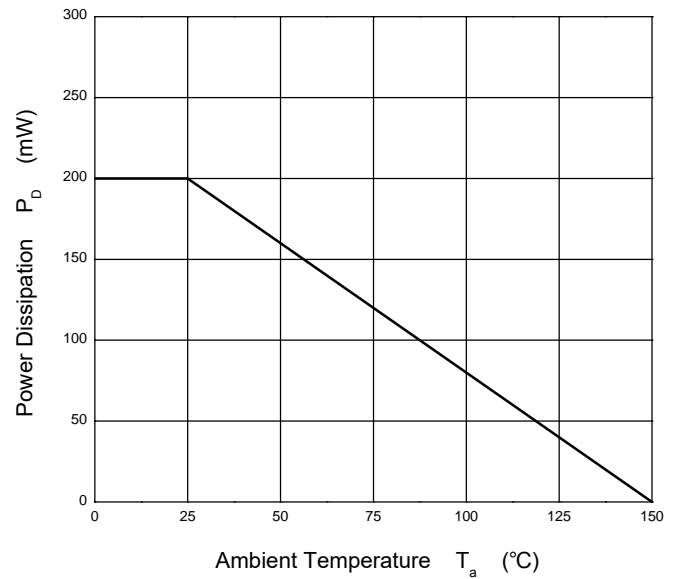
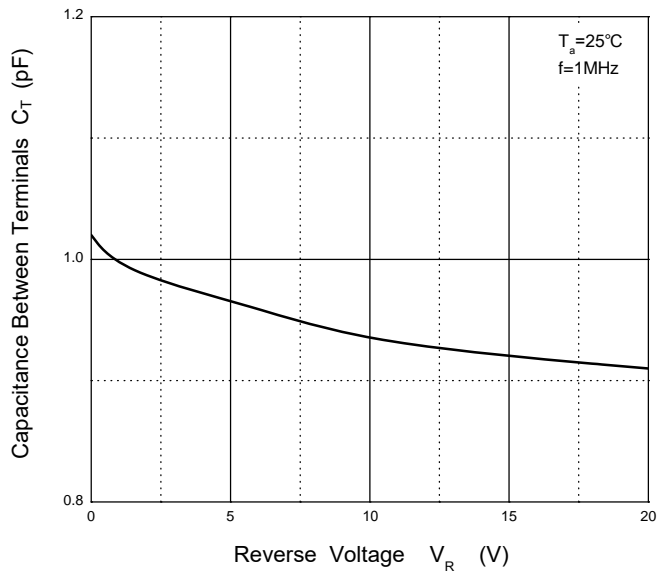
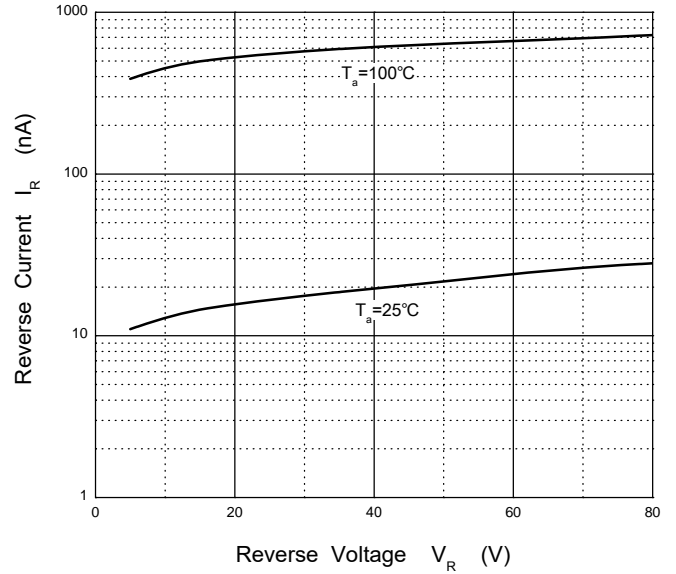
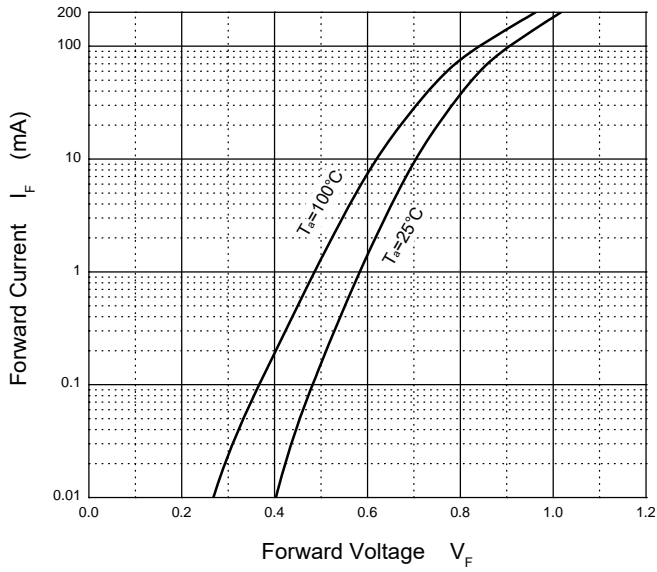
Parameter	Symbol	Min.	Max.	Unit
Maximum Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 50\text{ mA}$ at $I_F = 150\text{ mA}$	$V_F$	-- -- -- --	0.715 0.855 1.00 1.25	V
Peak Reverse Current at $V_R = 75\text{ V}$ at $V_R = 20\text{ V}$	$I_R$	-- --	1 25	$\mu\text{A}$ nA
Capacitance Between Terminals at $V_R = 0\text{ V}$ , $f = 1\text{ MHz}$	$C_T$	--	2	pF
Reverse Recovery Time at $I_{rr} = 1\text{ mA}$ , $I_F = I_R = 10\text{ mA}$ , $R_L = 100\text{ }\Omega$	$t_{rr}$	--	4	nS



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### Typical Characteristic Curves





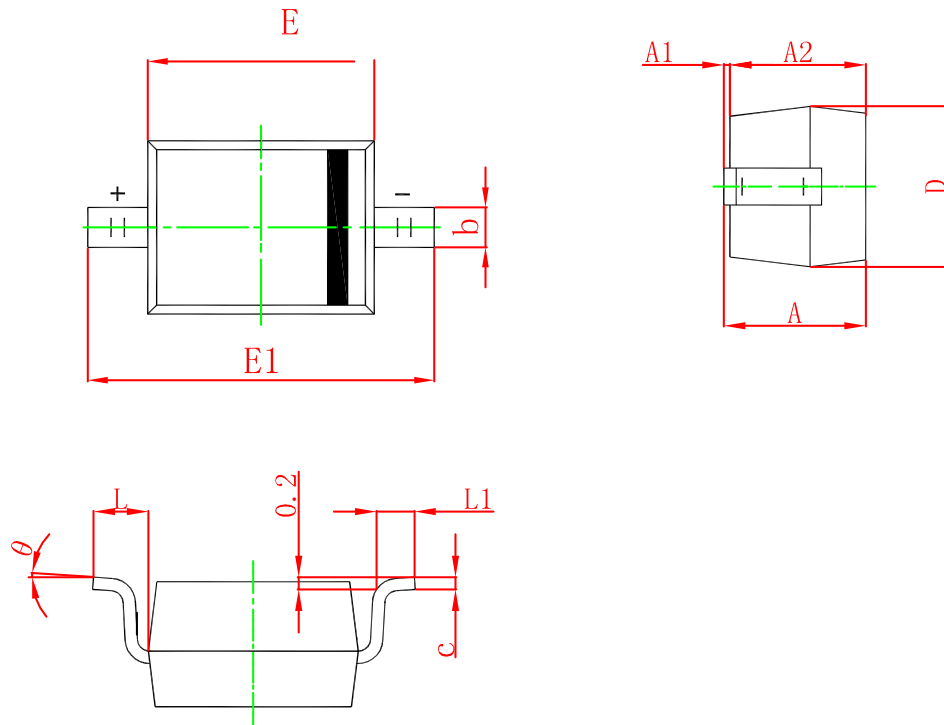
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### Package Outline

SOD-323

Dimensions in mm



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
$\theta$	0°	8°	0°	8°