

BAV16WS

Fast Switching Diode

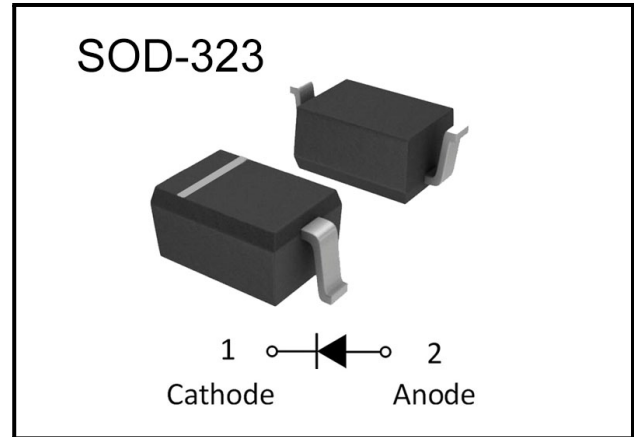
Features

- Fast Switching Speed.
- High Conductance.
- For General Purpose Switching Applications.
- Surface Mount Package Ideally Suited for Automatic Insertion.

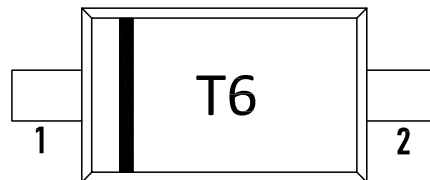
Description

- SOD-323 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Package



Marking



Ordering information

Order code	Package	Marking	Base qty	Delivery mode
BAV16WS	SOD-323	T6	3K	Tape and reel

Maximum Ratings @T_A=25°C unless otherwise noted

Symbol	Parameter	Value	Unit
V _R	DC Blocking Voltage	100	V
V _{RM}	Non-repetitive Peak Reverse Voltage		
V _{RPM}	Peak Repetitive Peak Reverse Voltage		
V _{RWM}	Working Peak Reverse Voltage		
V _{R(RMS)}	RMS Reverse Voltage	71	V
I _O	Average Rectified Output Current	150	mA
I _{FM}	Forward Continuous Current	300	mA
I _{FSM}	Non-repetitive Peak Forward Surge Current@ 8.3mS	2.0	A
P _d	Power Dissipation	200	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	600	°C/W
T _J	Operation Junction Temperature Range	-40 to +125	°C
T _{STG}	Storage temperature range	-55 to +150	°C

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Electrical Characteristics @T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Limits		Unit
			Min.	Max.	
V _{BR}	Reverse breakdown voltage	I _R =100uA	100	–	V
I _R	Reverse Leakage Current	V _R =75V	–	1	uA
		V _R =20V	–	25	nA
V _F	Forward Voltage	I _F =1.0mA	–	0.45	V
		I _F =10mA	–	0.55	
		I _F =50mA	–	0.5	
		I _F =150mA	–	0.875	
C _D	Diode Capacitance	V _R = 0V, f=1MHZ	–	2	pF
T _{RR}	Reverse Recovery Time	I _F = I _R = 10mA R _L = 100Ω I _{RR} = 0.1xI _R	–	4	nS





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Typical Performance Characteristics ($T_J = 25^\circ\text{C}$, unless otherwise noted)

Figure 1: Forward Characteristics

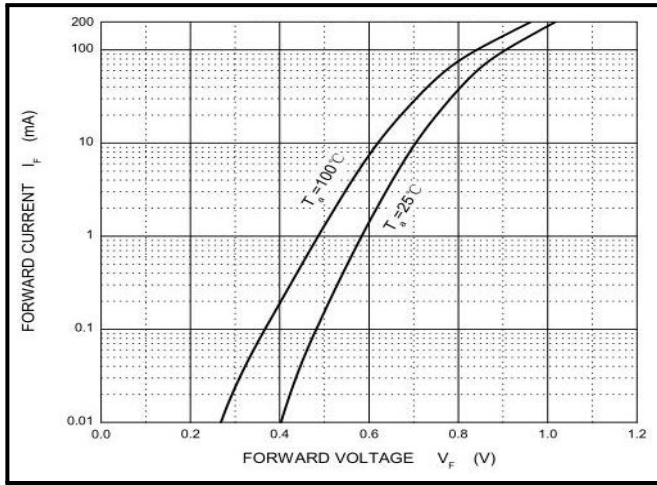


Figure 2: Reverse Characteristics

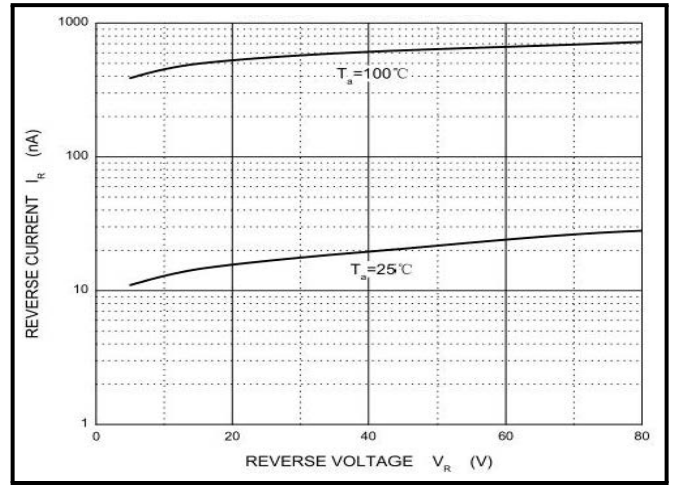


Figure 3: Capacitance Characteristics

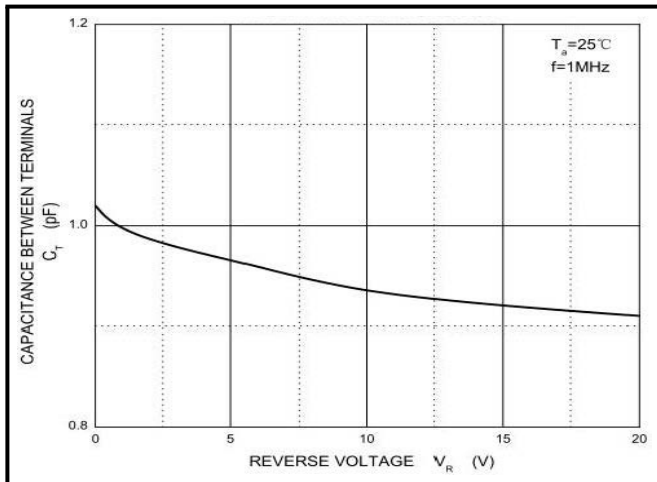
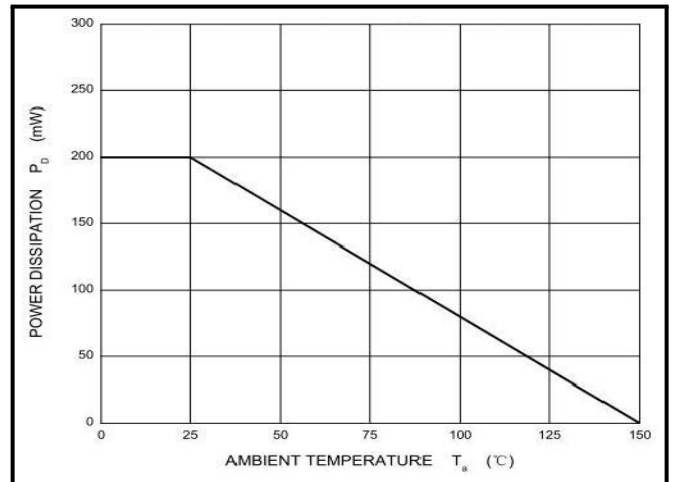


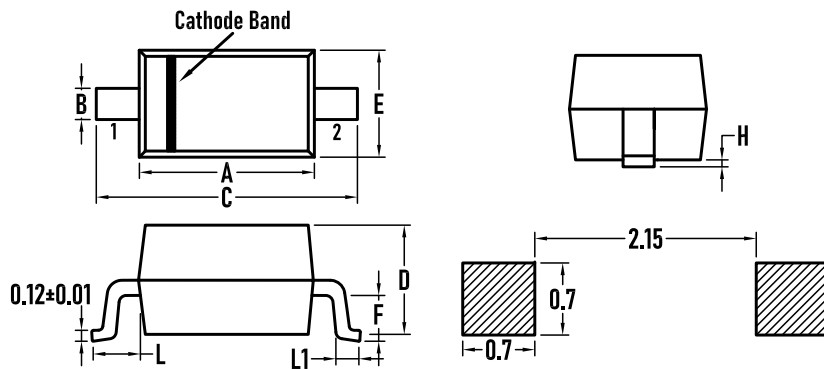
Figure 4: Power Derating Curve



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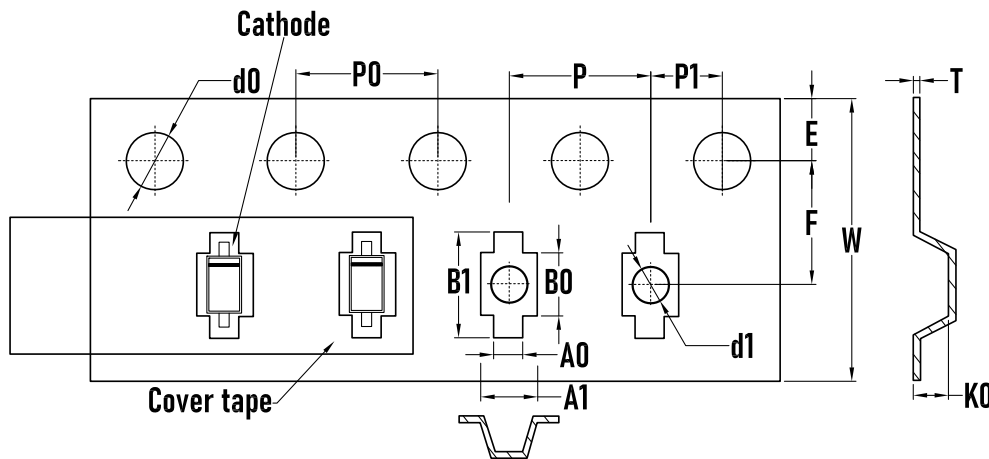
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Outline Drawing – SOD-323



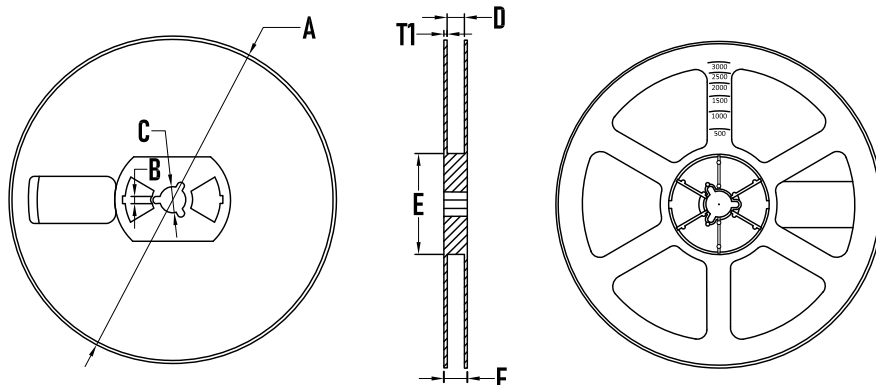
SYMBOL	MILLIMETER		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	1.600	1.800	0.063	0.071
B	0.250	0.350	0.010	0.014
C	2.500	2.700	0.098	0.106
D	–	1.000	–	0.039
E	1.200	1.400	0.047	0.055
F	0.080	0.150	0.003	0.006
L	0.475REF		0.019REF	
L1	0.250	0.400	0.010	0.016
H	0.000	0.100	0.000	0.004

Packaging Tape - SOD-323



SYMBOL	MILLIMETER
A0	0.80±0.10
A1	1.48±0.10
B0	1.80±0.10
B1	3.00±0.10
d0	1.55±0.10
d1	1.00±0.05
E	1.75±0.10
F	3.50±0.10
K0	1.05±0.10
P	4.00±0.10
P0	4.00±0.10
P1	2.00±0.10
W	8.00±0.30
T	0.25 ±0.05

Packaging Reel



SYMBOL	MILLIMETER
A	177.8±0.2
B	2.7±0.2
C	13.5±0.2
D	9.6±0.3
E	54.5±0.2
F	12.3±0.3
T1	1.0±0.2
Quantity	3000PCS

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