

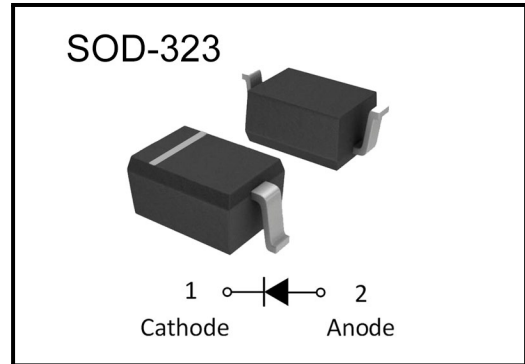
BAS16WS

Fast Switching Diode

Features

- Fast Switching Device ($T_{RR} < 6.0\text{ns}$)
- Power Dissipation of 250mW
- High Stability and High Reliability
- Low reverse leakage

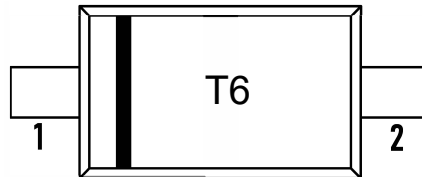
Package



Description

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

Marking



Ordering information

Order code	Package	Marking	Base qty	Delivery mode
BAS16WS	SOD-323	T6	3K	Tape and reel

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

Symbol	Parameter	Value	Unit
V_R	Reverse Voltage	75	V
V_{RM}	Peak Reverse Voltage	85	V
I_O	Average Rectified Current	250	mA
I_{FSM}	Peak Forward Surge Current @ $t_p=1\mu\text{s}$; $T_A=25^\circ\text{C}$	2.0	A
P_d	Power Dissipation	250	mW
T_J	Operating junction temperature	150	$^\circ\text{C}$
T_S	Storage temperature range	-55 to +150	$^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	500	$^\circ\text{C/W}$

**BORN SEMICONDUCTOR, INC. ALL
RIGHT RESERVED**

Specifications are subject to change without notice.

Please refer to <http://www.born-tw.com> for current information. Revision: 2022-Jan-1-A



BAS16WS

Fast Switching Diode

Electrical Characteristics @T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min.	Max.	Unit
V _(BR)	Reverse Voltage	I _R =10uA	75	—	V
I _R	Reverse Leakage Current	V _R =25V	—	30	nA
		V _R =75V	—	1	μA
V _F	Forward Voltage	I _F =1mA	—	0.715	V
		I _F =10mA	—	0.855	
		I _F =50mA	—	1.00	
		I _F =150mA	—	1.25	
T _{RR}	Reverse Recovery Time	I _F =I _R =10mA	—	6	nS
		R _L =100Ω			
		I _{RR} =0.1×I _R			
C _T	Capacitance	V _R =0V, f=1MHZ	—	2.0	pF



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

Figure 1: Forward Characteristics

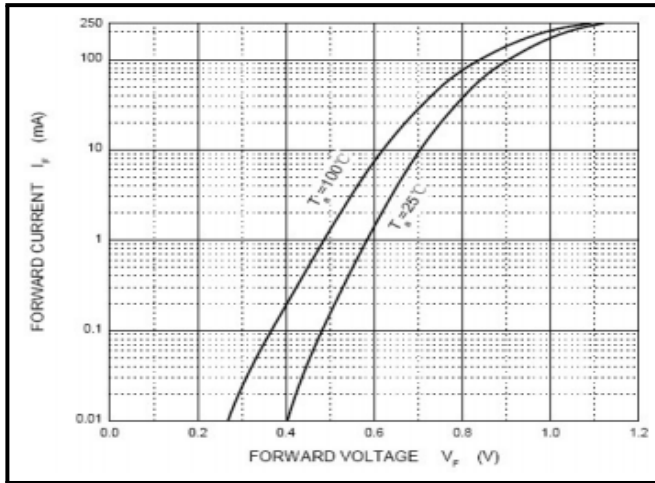


Figure 2: Reverse Characteristics

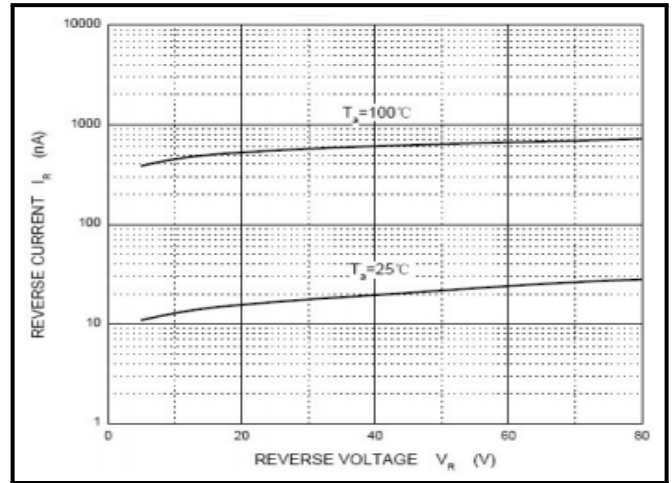


Figure 3: Capacitance Characteristics

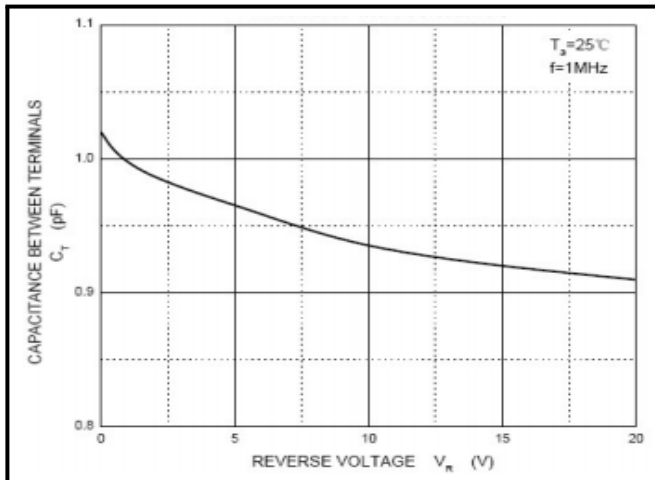
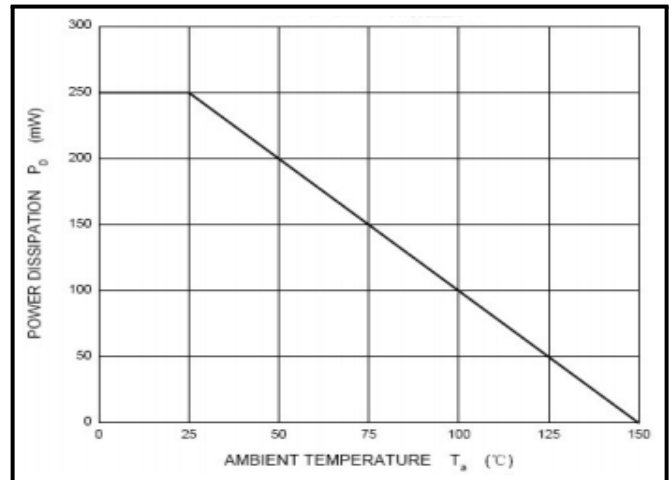


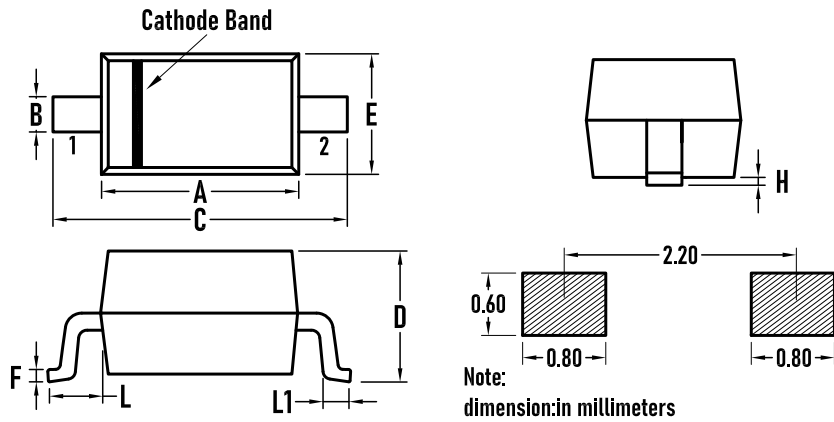
Figure 4: Power Derating Curve



BAS16WS

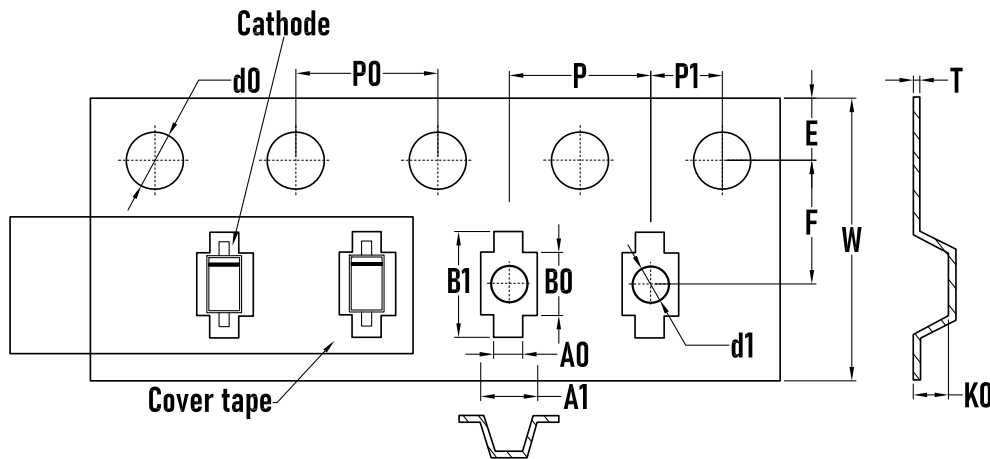
Fast Switching Diode

Outline Drawing - SOD-323



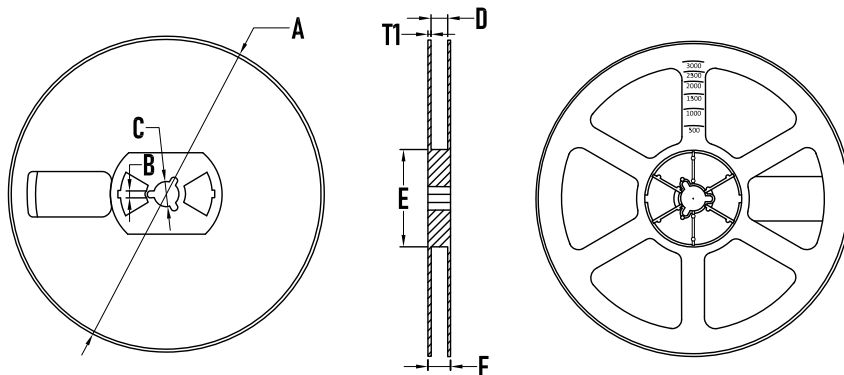
SYMBOL	MILLIMETER		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	1.600	1.800	0.063	0.071
B	0.250	0.350	0.010	0.014
C	2.400	2.800	0.094	0.110
D	—	1.100	—	0.043
E	1.100	1.500	0.043	0.059
F	0.080	0.150	0.003	0.006
L	0.475REF		0.019REF	
L1	0.250	0.400	0.010	0.016
H	0.000	0.100	0.000	0.004

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

**BORN SEMICONDUCTOR, INC. ALL
RIGHT RESERVED**

Specifications are subject to change without notice.

Please refer to <http://www.born-tw.com> for current information.

Revision: 2022-Jan-1-A

