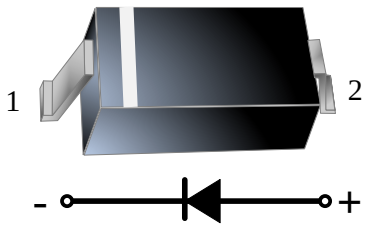
BAS316-AT

High-speed switching diode

Features

- Low capacitance
- Low leakage current
- Small SMD plastic package
- High switching speed
- AEC-Q101 Qualified



SOD-323

Applications

- High-speed switching
- General-purpose switching

Absolute Maximum Rating

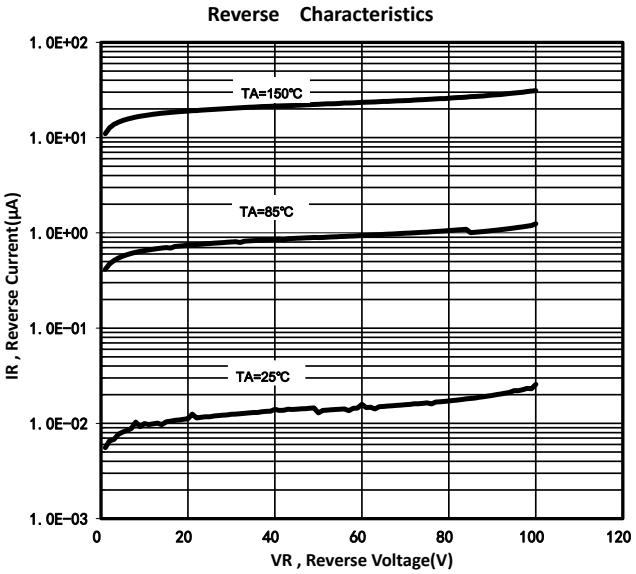
Parameter		Symbol	Value	Unit
Repetitive Peak Reverse Voltage		V_{RRM}	100	V
Forward Current		I_F	250	mA
Non-repetitive Peak Forward Surge Current at T_J(init)=25℃	tp = 1 μs	I_{FSM}	4.0	A
	tp = 1 ms		1.0	
	tp = 1 s		0.5	
Repetitive Peak Forward Current @ tp≤0.5 ms; δ = 0.25		I_{FRM}	500	mA
Power Dissipation		P_D	400	mW
Thermal Resistance from Junction to Ambient		$R_{\theta JA}$	312	°C/W
Junction Temperature		T_J	-55 to +150	°C
Storage Temperature		T_{STG}	-55 to +150	°C

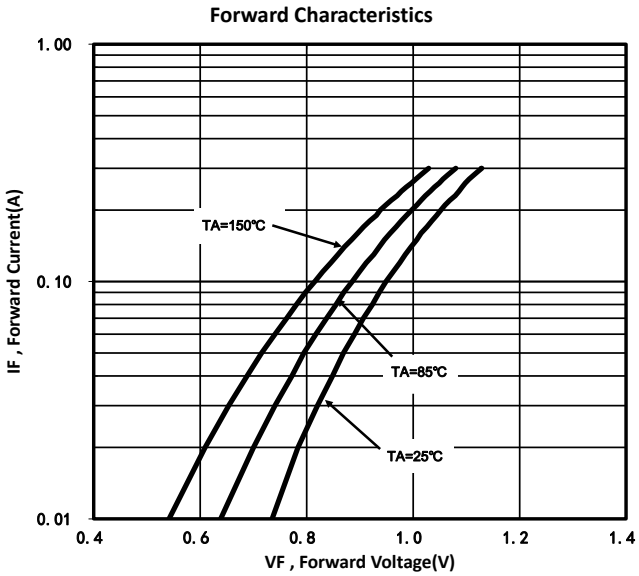
Electrical Characteristics (T_{amb}=25°C unless otherwise noted)

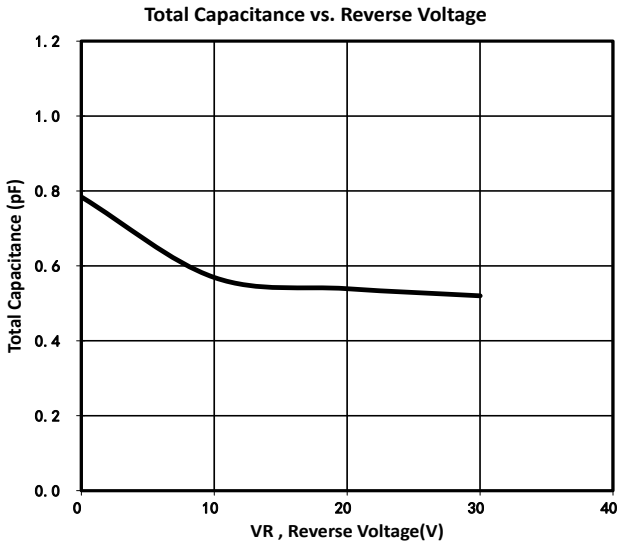
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F = 1mA	-	-	0.715	V
		I_F = 10mA	-	-	0.855	
		I_F = 50mA	-	-	1.0	
		I_F = 150mA	-	-	1.25	
Reverse Current	I_R	V_R = 100V	-	-	0.5	μA
		V_R = 25V	-	-	30	nA
Diode Capacitance	C_D	V_R =0V,f=1MHz	-	-	2.0	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=10mA,I_{rr}=0.1I_R, R_L=100Ω	-	-	4.0	ns

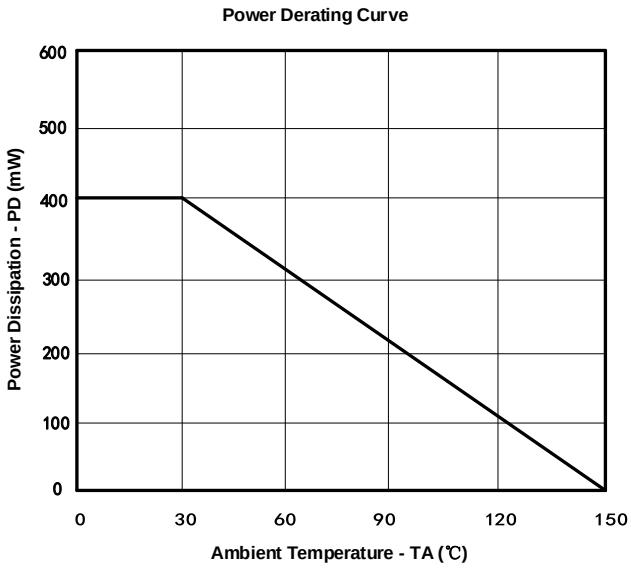
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Typical Characteristics



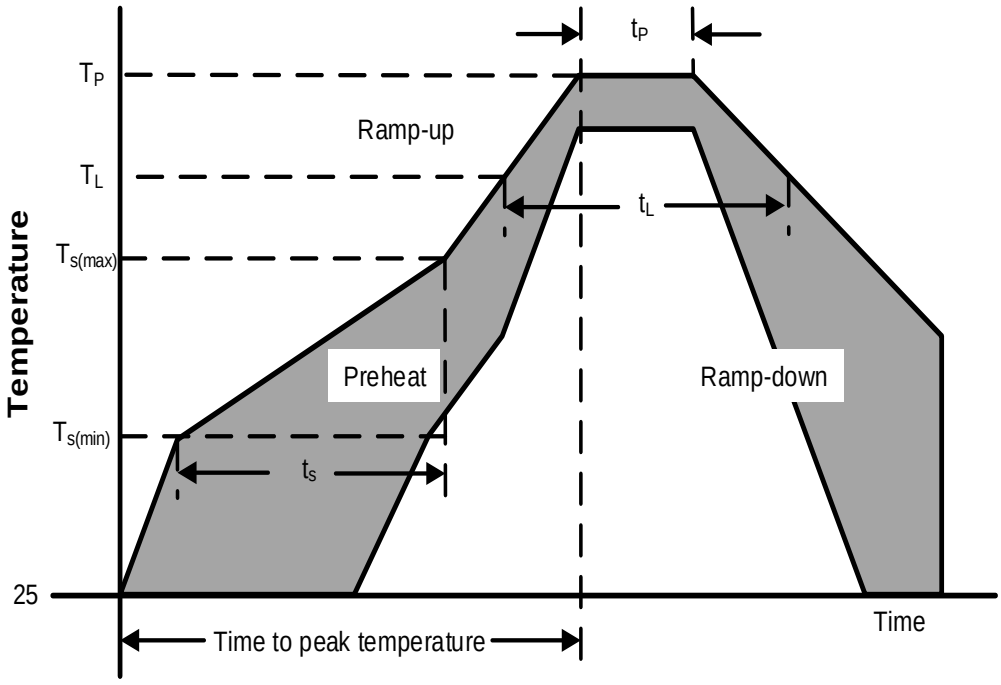






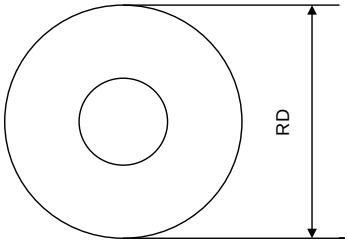
Soldering Parameters

Reflow Condition		Pb – Free assembly
Pre Heat	Temperature Min ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (ts)	60 – 190 secs
Average ramp up rate (Liquidus Temp) (T_L) to peak		5°C/second max
$T_{S(max)}$ to T_L——Ramp-up Rate		5°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_P)		260+0/-5 °C
Time within actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		5°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes Max.
Do not exceed		280°C

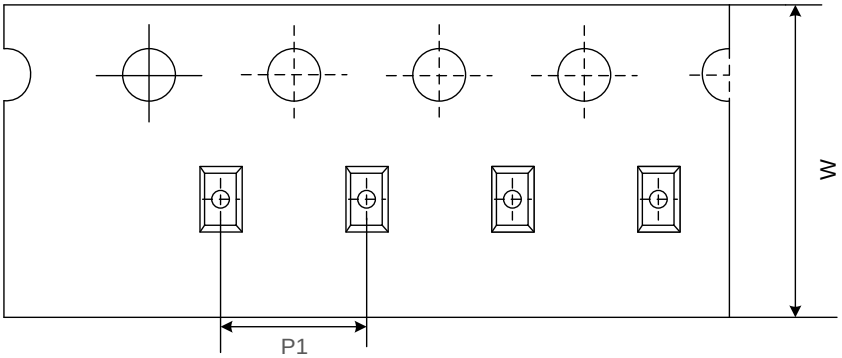


Tape And Reel Information

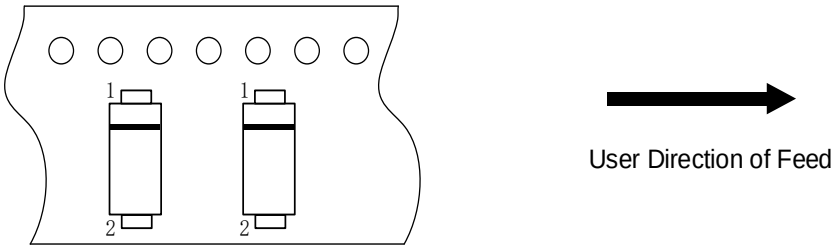
Reel Dimensions



Tape Dimensions



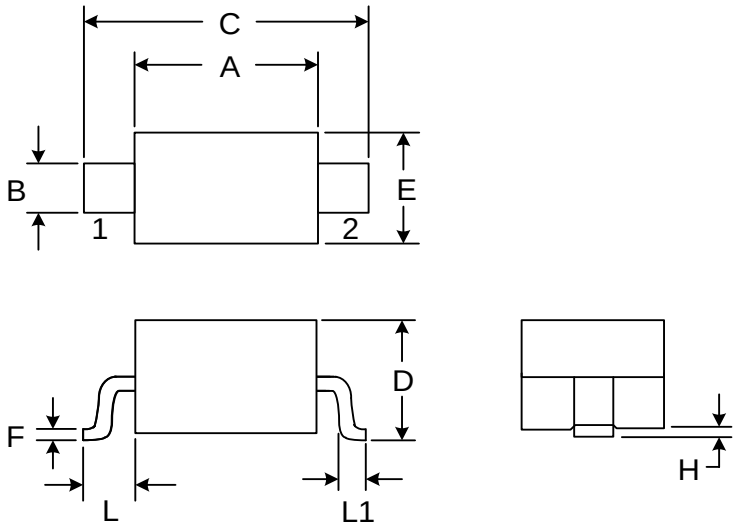
Quadrant Assignments For PIN1 Orientation In Tape

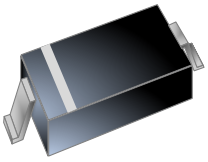


RD	Reel Dimensions	7 inch
W	Overall width of the carrier tape	8 mm
P1	Pitch between successive cavity centers	4mm

Outline Drawing – SOD-323

PACKAGE OUTLINE



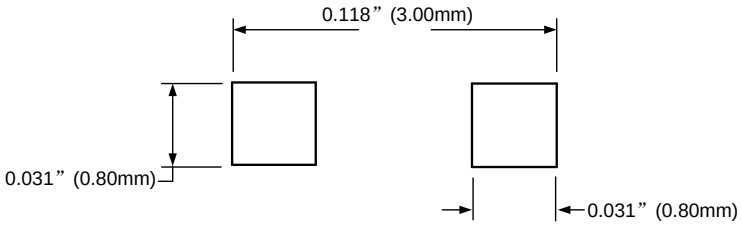


SOD-323

DIMENSIONS

SYMBOL	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.52	1.80	0.060	0.071
B	0.25	0.40	0.010	0.016
C	2.46	2.71	0.097	0.107
D	0.80	1.16	0.031	0.046
E	1.11	1.40	0.044	0.055
F	0.08	0.20	0.003	0.008
L	0.475 REF		0.019REF	
L1	0.25	0.40	0.010	0.016
H	0.00	0.10	0.000	0.004

MOUNTING PAD



Notes:
Controlling Dimension: Millimeter.

Marking Codes

Part Number	BAS316-AT
Marking Code	T4

Package Information

Qty：3k/Reel

CONTACT INFORMATION

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WAYON website: **http://www.way-on.com**
For additional information, please contact your local Sales Representative.

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Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.