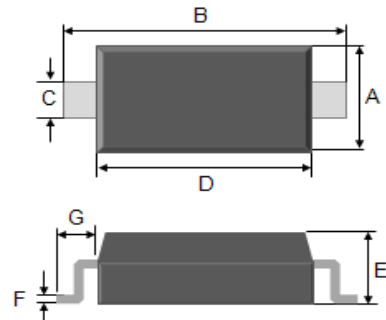


### Small Signal Diode



SOD-323



### Features

- ✧ Fast switching device ( $T_{rr} < 4.0\text{ns}$ )
- ✧ Surface device type mounting
- ✧ Moisture sensitivity level 1
- ✧ Matte Tin (Sn) lead finish
- ✧ Pb free version, RoHS compliant
- ✧ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

### Mechanical Data

- ✧ Case : Flat lead SOD-323 small outline plastic package
- ✧ Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ✧ High temperature soldering guaranteed: 260°C/10s
- ✧ Polarity : Indicated by cathode band
- ✧ Weight : 4.85±0.5 mg
- ✧ Marking Code : A6

Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.20	1.40	0.047	0.055
B	2.50	2.70	0.098	0.106
C	0.25	0.35	0.010	0.014
D	1.60	1.80	0.063	0.071
E	0.80	0.90	0.031	0.035
F	0.08	0.15	0.003	0.006
G	0.19 REF		0.475 REF	

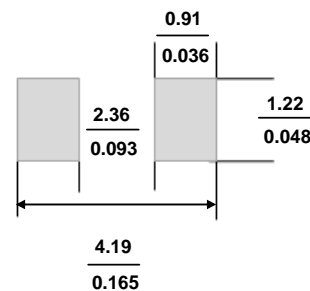
### Ordering Information

Part No.	Package	Packing
BAS316 RR	SOD-323	3Kpcs / 7" Reel
BAS316 RRG	SOD-323	3Kpcs / 7" Reel

### Pin Configuration



### Suggested PAD Layout



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

#### Maximum Ratings

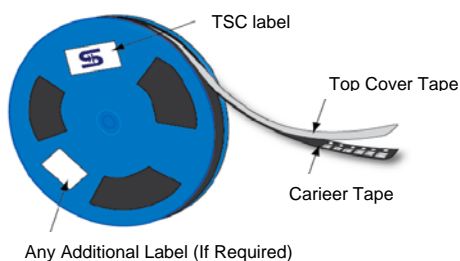
Type Number	Symbol	Value	Units
Power Dissipation	$P_D$	200	mW
Mean Forward Current	$I_o$	250	mA
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	4.0	A
Pulse Width= 1 usec Pulse Width= 1 msec		1.0	
Junction and Storage Temperature Range	$T_J, T_{STG}$	-65 to + 150	°C

**Small Signal Diode**

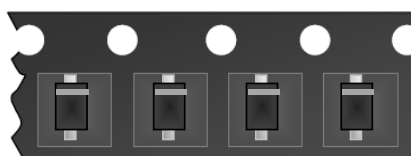
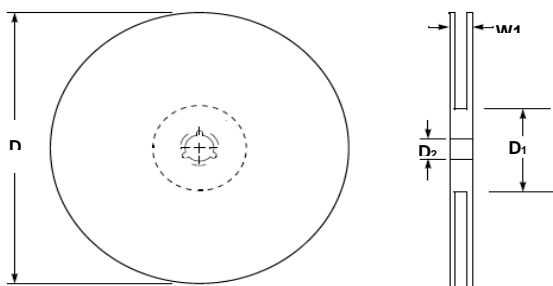
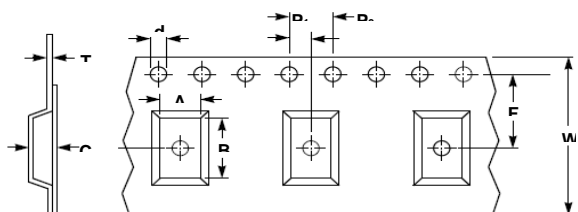
**Electrical Characteristics**

Type Number		Symbol	Min	Max	Units
Reverse Breakdown Voltage	$I_R = 100 \mu A$	$V_{(BR)}$	100	-	V
Forward Voltage	$I_F = 1.0 \text{ mA}$	$V_F$	0.62	0.715	V
	$I_F = 10 \text{ mA}$		-	0.855	
	$I_F = 50 \text{ mA}$		-	1.000	
	$I_F = 150 \text{ mA}$		-	1.250	
Reverse Leakage Voltage	$V_R = 75 \text{ V}$	$I_R$	-	1.00	$\mu A$
	$V_R = 25 \text{ V}$		-	0.03	
Junction Capacitance	$V_R = 0, f = 1.0 \text{ MHz}$	$C_J$	-	1.5	pF
Reverse Recovery Time	$I_F = I_R = 10 \text{ mA}, R_L = 100 \Omega$	$T_{rr}$	-	4.0	ns

**Tape & Reel specification**



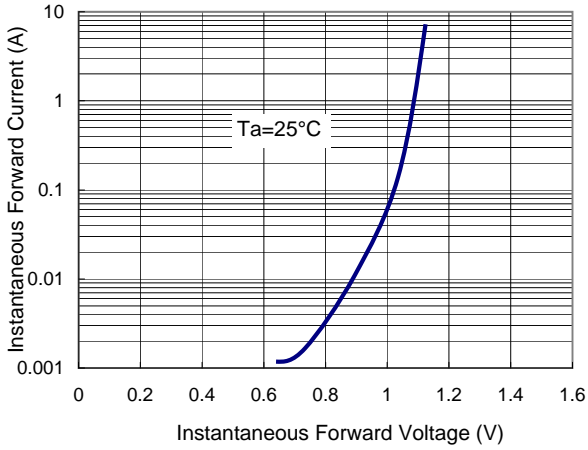
Item	Symbol	Dimension
Carrier width	A	1.85 ± 0.10
Carrier length	B	3.94 ± 0.10
Carrier depth	C	1.50 ± 0.10
Sprocket hole	d	1.5 ± 0.1
Reel outside diameter	D	178 ± 1
Reel inner diameter	D1	55 Min
Feed hole width	D2	13.0 ± 0.20
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.05
Sprocket hole pitch	P0	4.00 ± 0.10
Embossment center	P1	2.00 ± 0.05
Overall tape thickness	T	0.23 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W1	14.4 Max



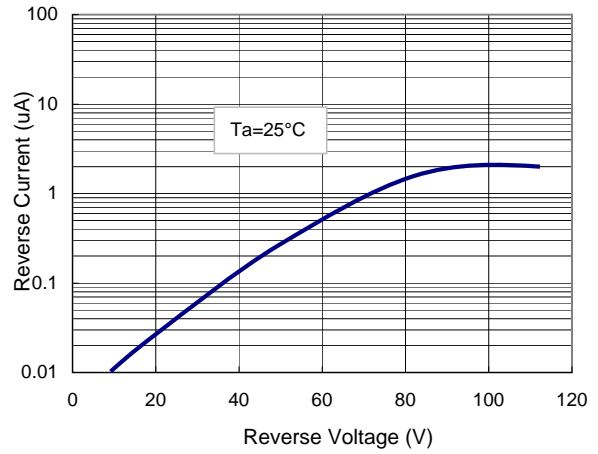
**Small Signal Diode**

**Rating and Characteristic Curves**

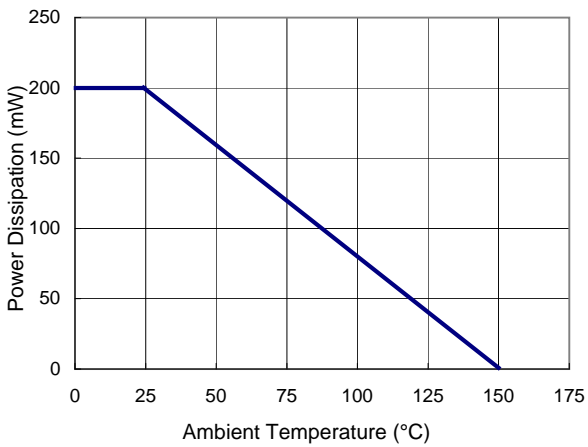
**FIG 1 Typical Forward Characteristics**



**FIG 2 Reverse Current vs Reverse Voltage**



**FIG 3 Admissible Power Dissipation Curve**



**FIG 4 Typical Junction Capacitance**

