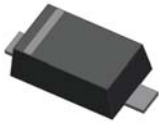


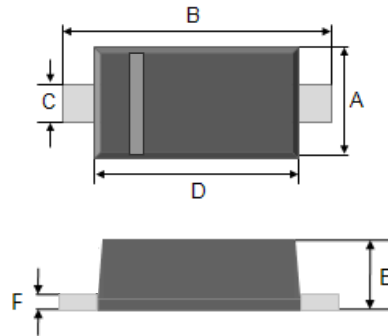
**Small Signal Diode**



**SOD-323F**

**Features**

- ✧ Fast switching device ( $T_{rr} < 4.0nS$ )
- ✧ 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-323F 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 : 4.6±0.5 mg
- ✧ Marking Code : W2

Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.15	1.40	0.045	0.055
B	2.30	2.80	0.091	0.106
C	0.25	0.40	0.010	0.016
D	1.60	1.80	0.063	0.071
E	0.80	1.10	0.031	0.043
F	0.05	0.15	0.002	0.006

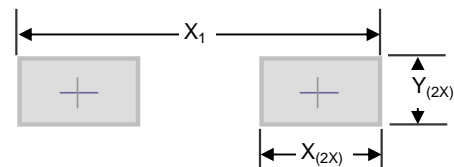
**Ordering Information**

Part No.	Package	Packing
BAS316WS RR	SOD-323F	3Kpcs / 7" Reel
BAS316WS RRG	SOD-323F	3Kpcs / 7" Reel

**Pin Configuration**



**Suggested PAD Layout**



Dimensions	Unit (mm)
X	0.710
X <sub>1</sub>	2.900
Y	0.403

**Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified.

**Maximum Ratings**

Type Number	Symbol	Value	Units
Power Dissipation	P <sub>d</sub>	200	mW
Average Forward Current	I <sub>o</sub>	250	mA
Non-Repetitive Peak Forward Surge Current	I <sub>FSM</sub>	4.0	A
Pulse Width= 1 usec Pulse Width= 1 msec		1.0	
Operating Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>STG</sub>	-65 to + 150	°C

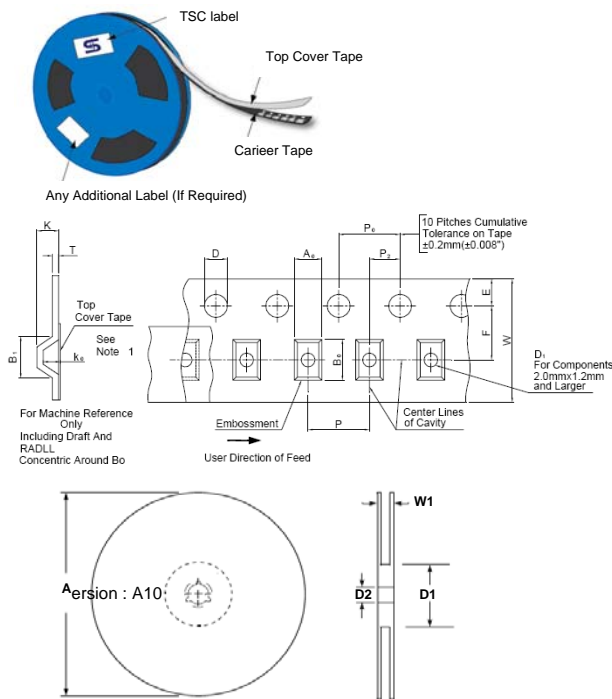
Notes: 1. The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application.

**Small Signal Diode**

**Electrical Characteristics**

Type Number		Symbol	Min	Max	Units
Reverse Breakdown Voltage	$I_{R1} = 100 \mu A$	$V_{(BR)}$	100	-	V
Forward Voltage	$I_F = 1.0 \text{ mA}$	$V_F$	-	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 Current	$V_R = 75 \text{ V}$	$I_R$	-	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	$I_F = I_R = 10 \text{ mA}, I_{rr} = 0.1 \times I_{R1}$	$T_{rr}$	-	4.0	ns

**Tape & Reel specification**



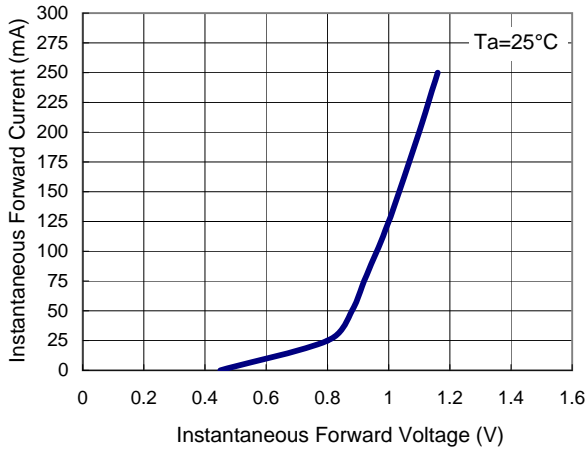
Item	Symbol	Dimension(mm)
Carrier depth	K	2.40 Max.
Sprocket hole	D	1.50 ±0.10
Reel outside diameter	A	178 ± 1
Reel inner diameter	D1	50 Min.
Feed hole width	D2	13.0 ± 0.5
Sprocket hole position	E	1.75 ±0.10
Punch hole position	F	3.50 ±0.05
Sprocket hole pitch	P0	4.00 ±0.10
Embossment center	P1	2.00 ±0.10
Overall tape thickness	T	0.6 Max.
Tape width	W	8.30 Max.
Reel width	W1	14.4 Max.

Note 1: A0, B0, and K0 are determined by component size. The clearance between the components and the cavity must be within 0.05 mm min. to 0.5 mm max. The component cannot rotate more than 10° within the determined cavity.  
 Note 2: If B1 exceeds 4.2 mm(0.165") for 8 mm embossed tape, the tape may not feed through all tape feeders.

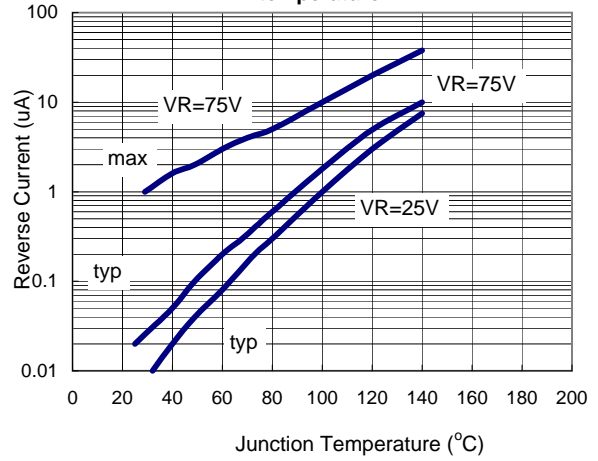
**Small Signal Diode**

**Rating and Characteristic Curves**

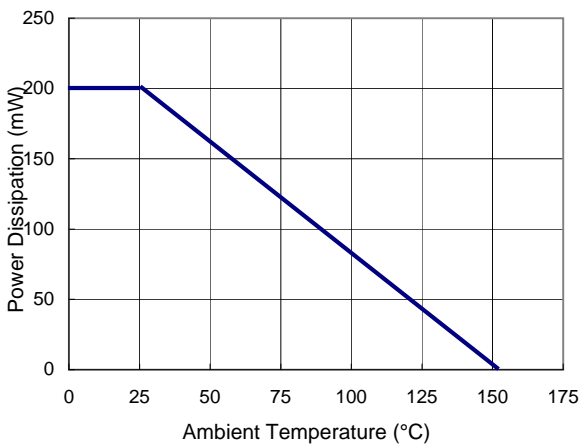
**FIG 1 Typical Forward Characteristics**



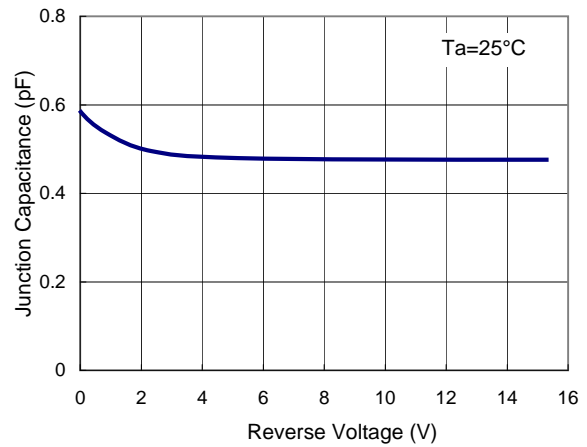
**FIG 2 Reverse Current as a function of junction temperature.**



**FIG 3 Admissible Power Dissipation Curve**



**FIG 4 Typical Junction Capacitance**



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