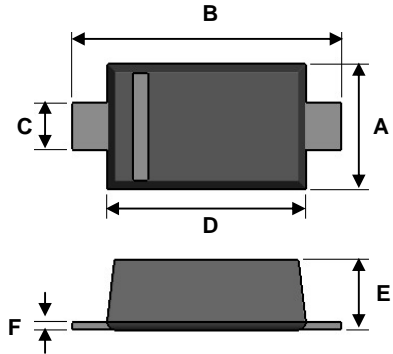


### Small Signal Diode



SOD-323F



### Features

- ↪ Fast switching device ( $T_{rr} < 4.0\text{ns}$ )
- ↪ Surface device type mounting
- ↪ Moisture sensitivity level 1
- ↪ Matte Tin (Sn) lead finish with Nickel (Ni) underplate
- ↪ Pb free version and 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 : B3

Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.15	1.35	0.045	0.053
B	2.30	2.70	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	1.00	0.031	0.039
F	0.05	0.20	0.002	0.008

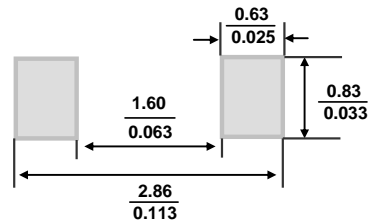
### Ordering Information

Package	Part No.	Packing	Marking
SOD-323F	B0530WS RR	3K / 7" Reel	B3
SOD-323F	B0530WS RRG	3K / 7" Reel	B3

### 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
Repetitive Peak Reverse Voltage	$V_{RRM}$	30	V
Mean Forward Current	$I_o$	500	mA
Non-Repetitive Peak Forward Surge Current Pulse Width= 8.3 mS ( Singal Half -wave )	$I_{FSM}$	5.0	A
Thermal Resistance (Junction to Ambient) (Note )	$R_{\theta JA}$	426	°C/W
Junction and Storage Temperature Range	$T_J, T_{STG}$	-65 to + 125	°C

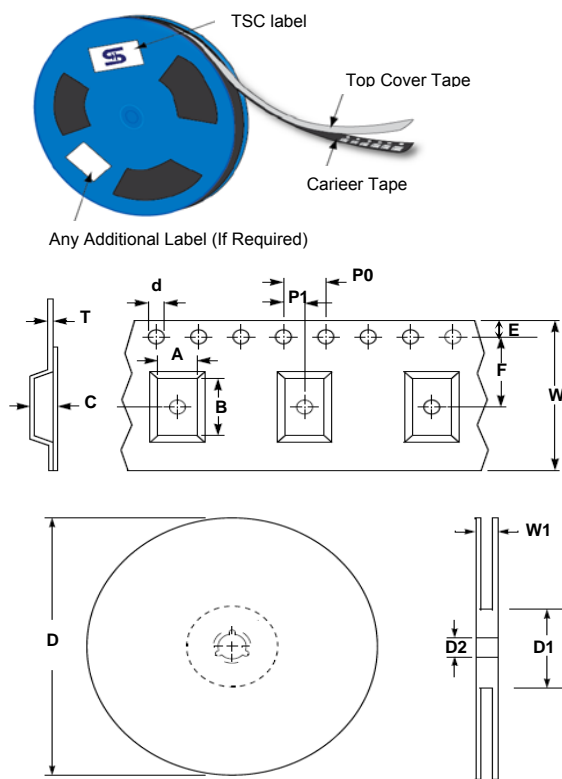
Notes:1. Valid provided that electrodes are kept at ambient temperature

**Small Signal Diode**

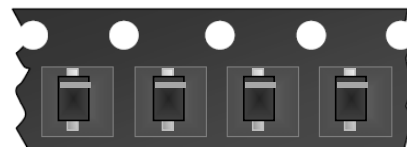
**Electrical Characteristics**

Type Number		Symbol	Min	Max	Units
Reverse Breakdown Voltage	$I_R = 500\mu A$	$V_{(BR)}$	30	-	V
Forward Voltage	$I_F = 100mA$	$V_F$	-	0.36	V
	$I_F = 500mA$		-	0.47	
Reverse Leakage Current	$V_R = 15V$	$I_R$	-	80	$\mu A$
	$V_R = 20V$			100	
	$V_R = 30V$			500	
Junction Capacitance	$V_R = 0, f = 1.0MHz$	$C_J$	-	58.0	pF

**Tape & Reel specification**



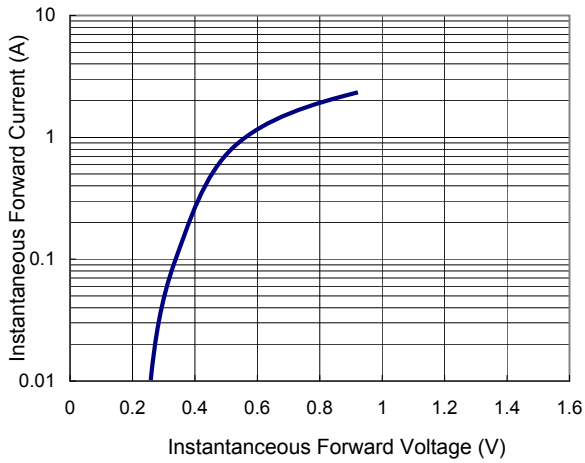
Item	Symbol	Dimension(mm)
Carrier width	A	1.7 ± 0.10
Carrier length	B	3.73 ± 0.10
Carrier depth	C	1.68 ± 0.10
Sprocket hole	d	1.5 ± 0.1
Reel outside diameter	D	178 ± 1
Reel inner diameter	D1	55 Min
Feed hole width	D2	13.0 ± 0.20
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.05
Sprocket 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



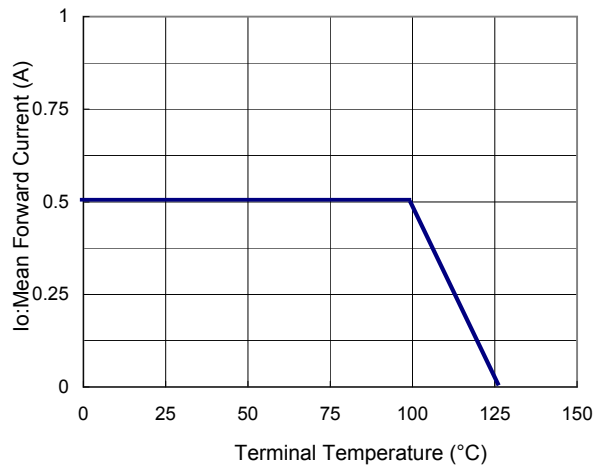
**Small Signal Diode**

**Rating and Characteristic Curves**

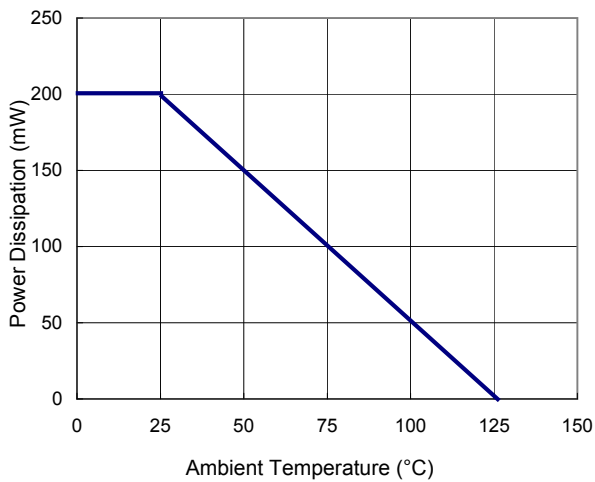
**FIG 1 Typical Forward Characteristics**



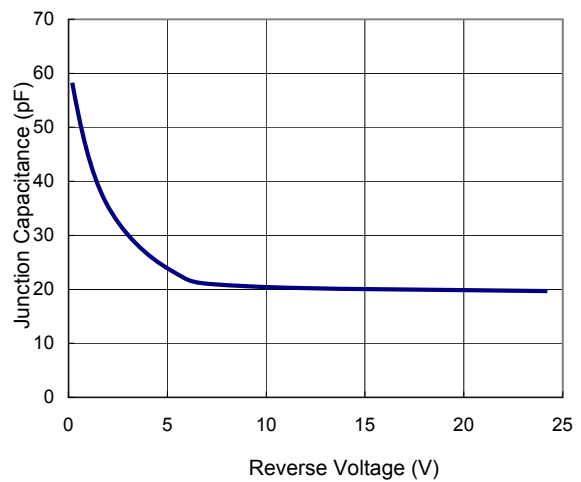
**FIG 2 Forward Current Derating Curve**



**FIG 3 Admissible Power Dissipation Curve**



**FIG 4 Typical Junction Capacitance**



**FIG 5 Typical Reverse Characteristics**

