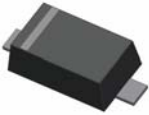


### Small Signal Diode

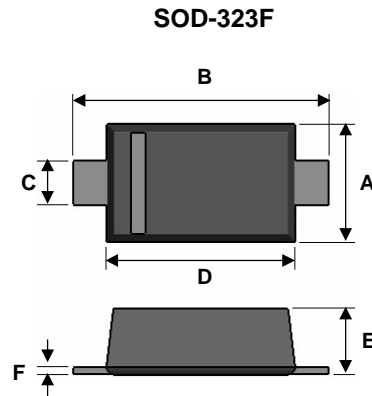


#### Features

- ✧ 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:  $260^\circ\text{C}/10\text{s}$
- ✧ Polarity : Indicated by cathode band
- ✧ Weight :  $4.85 \pm 0.5\text{mg}$



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

Part No.	Package	Packing
1NxxxxWS RR	SOD-323F	3Kpcs / 7" Reel

#### Maximum Ratings and Electrical Characteristics

Rating at  $25^\circ\text{C}$  ambient temperature unless otherwise specified.

##### Maximum Ratings

Type Number	Symbol	Value	Units
Power Dissipation	$P_D$	200	mW
Non-Repetitive Peak Reverse Voltage	$V_{RSM}$	100	V
Repetitive Peak Reverse Voltage	$V_{RRM}$	75	V
Repetitive Peak Forward Current	$I_{FRM}$	300	mA
Mean Forward Current	$I_o$	150	mA
Thermal Resistance (Junction to Ambient) (Note 1)	$R\theta_{JA}$	500	$^\circ\text{C}/\text{W}$
Junction and Storage Temperature Range	$T_J, T_{STG}$	-65 to + 150	$^\circ\text{C}$

##### Electrical Characteristics

Type Number	Symbol	Min	Max	Units	
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	100	-	V
		$I_R=5\mu\text{A}$	75	-	
Forward Voltage	$V_F$	1N4448WS, 1N914BWS $I_F=5.0\text{mA}$	0.62	0.72	V
		1N4148WS $I_F=10.0\text{mA}$	-	1.0	
		1N4448WS, 1N914BWS $I_F=100.0\text{mA}$	-	1.0	
Reverse Leakage Current	$I_R$	$V_R=20\text{V}$	-	25	nA
		$V_R=75\text{V}$	-	5.0	$\mu\text{A}$
Junction Capacitance	$C_J$	-	4.0	pF	
Reverse Recovery Time (Note 2)	$T_{rr}$	-	4.0	ns	

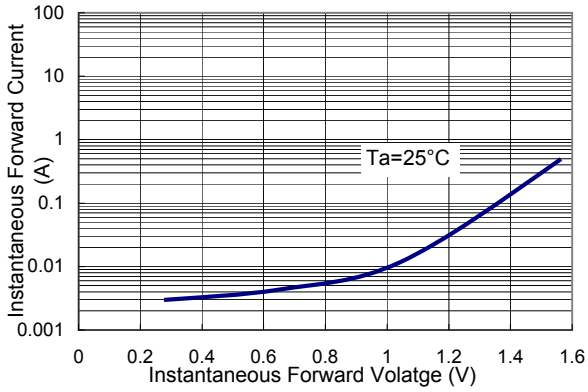
Notes:1. Valid provided that electrodes are kept at ambient temperature

Notes:2. Reverse Recovery Test Conditions:  $I_F=10\text{mA}$ ,  $I_R=60\text{mA}$ ,  $R_L=100\Omega$ ,  $I_{RR}=1\text{mA}$

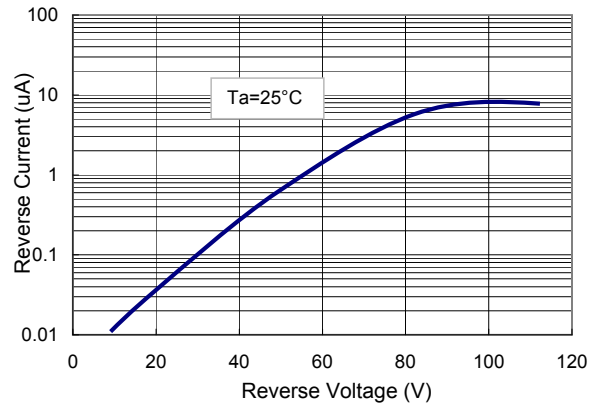
**Small Signal Diode**

**Rating and Sharacteristic Curves**

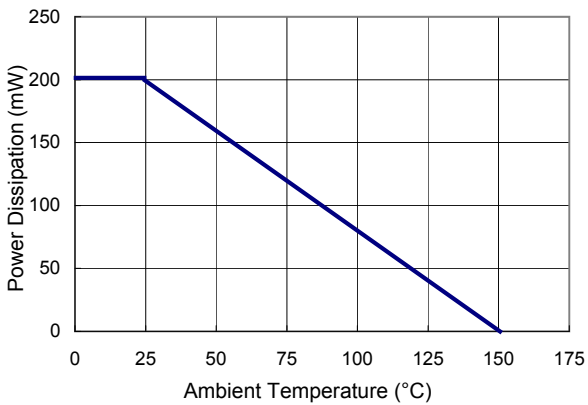
**FIG 1 Typical Forward Characteristics**



**FIG 2 Reverse Current vs Reverse Voltage**



**FIG 3 Admissible Power Dissipation Curve**



**FIG 4 Typical Junction Capacitance**

