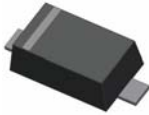


Small Signal Diode

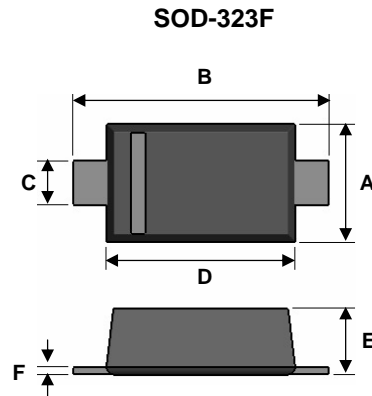


Features

- ✧ 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°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 $I_R=100\mu\text{A}$ $I_R=5\mu\text{A}$	$V_{(BR)}$	100	-	V
		75	-	
Forward Voltage 1N4448WS, 1N914BWS $I_F=5.0\text{mA}$ 1N4148WS $I_F=10.0\text{mA}$ 1N4448WS, 1N914BWS $I_F=100.0\text{mA}$	V_F	0.62	0.72	V
		-	1.0	
		-	1.0	
Reverse Leakage Current $V_R=20\text{V}$ $V_R=75\text{V}$	I_R	-	25	nA
		-	5.0	μA
Junction Capacitance $V_R=0, f=1.0\text{MHz}$	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

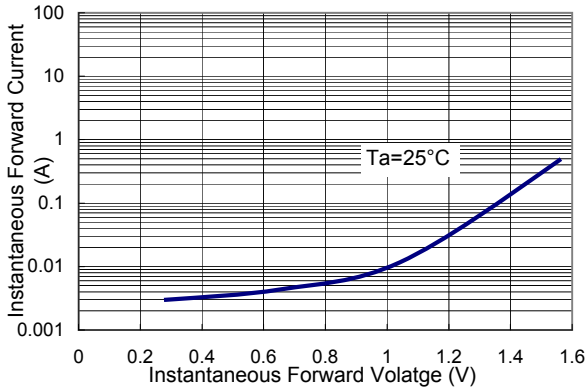


FIG 2 Reverse Current vs Reverse Voltage

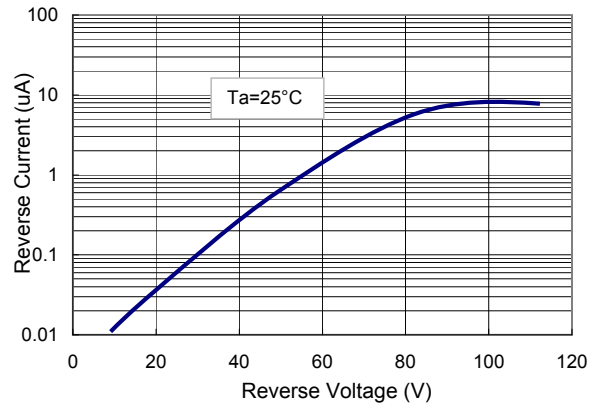


FIG 3 Admissible Power Dissipation Curve

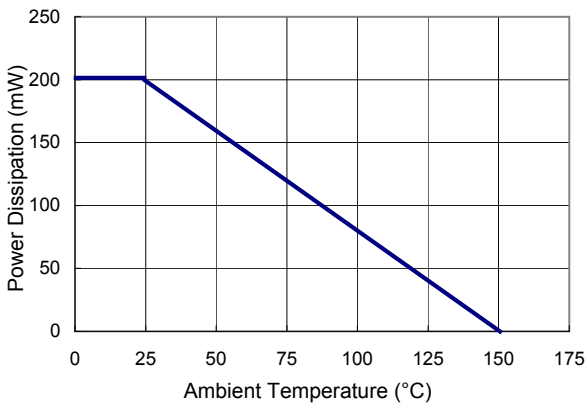


FIG 4 Typical Junction Capacitance

