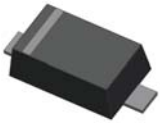
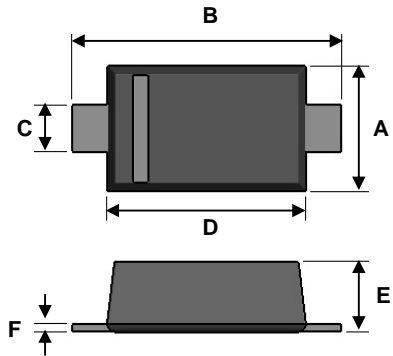


Small Signal Diode



SOD-323F



Features

- ↪ Fast switching device ($T_{rr} < 4.0nS$)
- ↪ Surface device type mounting
- ↪ Moisture sensitivity level 1
- ↪ Matte Tin (Sn) lead finish 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 : S1, S2, S3

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

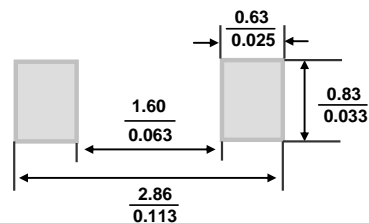
Ordering Information

Package	Part No.	Packing	Marking
SOD-323F	1N4148WS RR	3K / 7" Reel	S1
SOD-323F	1N4448WS RR	3K / 7" Reel	S2
SOD-323F	1N9148BWS RR	3K / 7" Reel	S3
SOD-323F	1N4148WS RRG	3K / 7" Reel	S1
SOD-323F	1N4448WS RRG	3K / 7" Reel	S2
SOD-323F	1N9148BWS RRG	3K / 7" Reel	S3

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}	100	V
Reverse Voltage	V_R	100	V
Repetitive Peak Forward Current	I_{FRM}	300	mA
Mean Forward Current	I_o	150	mA
Thermal Resistance (Junction to Ambient) (Note)	$R_{\theta JA}$	500	°C/W
Junction and Storage Temperature Range	T_J, T_{STG}	-65 to + 150	°C

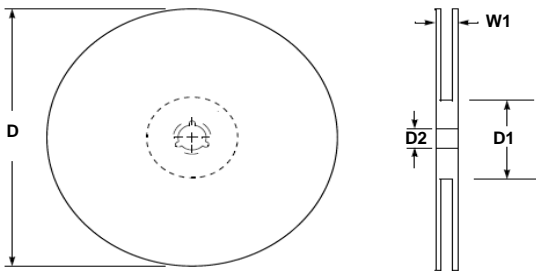
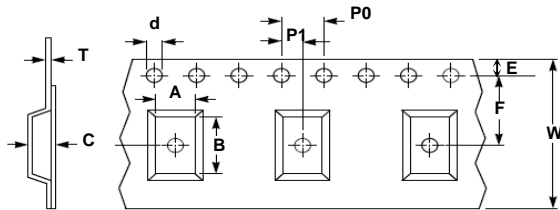
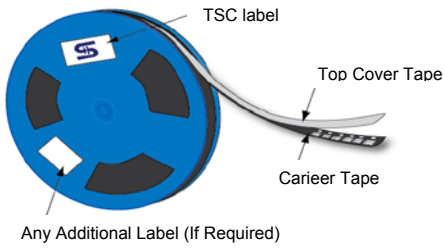
Notes:1. Valid provided that electrodes are kept at ambient temperature

Small Signal Diode

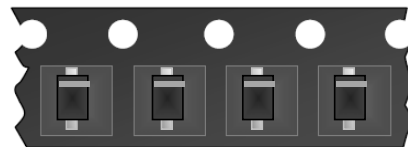
Electrical Characteristics

Type Number		Symbol	Min	Max	Units
Reverse Breakdown Voltage	$I_R = 100\mu A$	$V_{(BR)}$	100	-	V
	$I_R = 5\mu A$		75	-	
Forward Voltage	1N4448WS, 1N914BWS	V_F	0.62	0.72	V
	1N4148WS		-	1.0	
	1N4448WS, 1N914BWS		-	1.0	
Reverse Leakage Current	$V_R = 20V$	I_R	-	25	nA
	$V_R = 75V$		-	5.0	μA
Junction Capacitance	$V_R = 0, f = 1.0MHz$	C_J	-	4.0	pF
Reverse Recovery Time	$I_F = 10mA, I_R = 60mA, R_L = 100\Omega, I_{RR} = 1mA$	T_{rr}	-	4.0	ns

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 Sharacteristic Curves

FIG 1 Typical Forward Characteristics

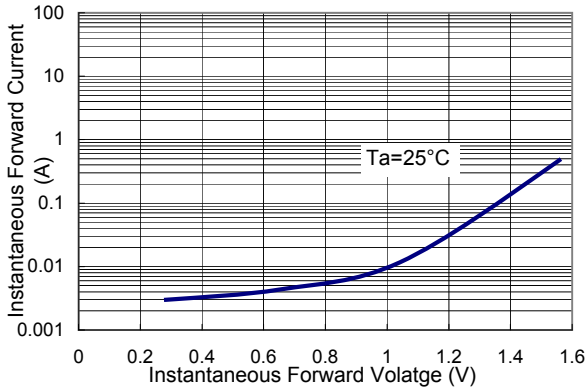


FIG 2 Reverse Current vs Reverse Voltage

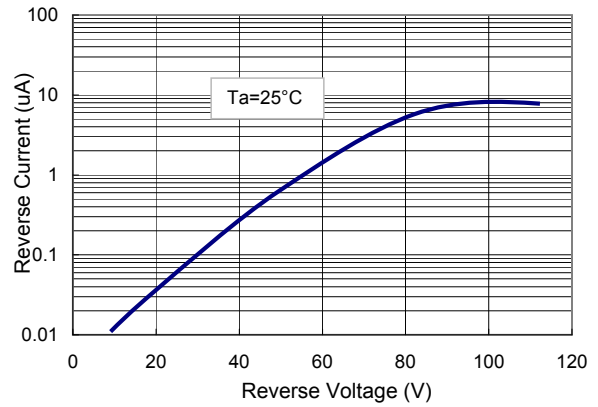


FIG 3 Admissible Power Dissipation Curve

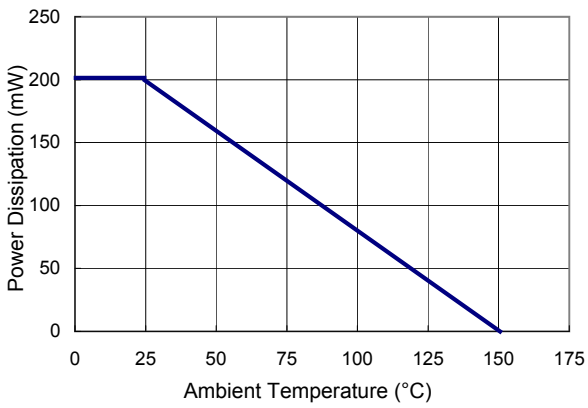


FIG 4 Typical Junction Capacitance

