Small Signal Product

200mW High Speed SMD Switching Diode

FEATURES

- Fast switching device (trr<4.0ns)
- Surface mount device type
- Moisture sensitivity level 1
- Matte Tin (Sn) lead finish
- Pb free version and RoHS compliant
- Packing code with suffix "G" means green compound (halogen-free)

SOD-323F

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: 4.85 ± 0.5 mg

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P_D	200	mW
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Reverse Voltage	V_R	100	V
Non-Repetitive Peak Forward Current	I_{FRM}	300	mA
Mean Forward Current	I_O	150	mA
Thermal Resistance (Junction to Ambient)	$R_{\theta JA}$	625	°C/W
Junction and Storage Temperature Range	T_J , T_{STG}	-65 to + 150	°C

PARAMETER			SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage		I_R=100μA	$V_{(BR)}$	100	-	V
		I_R=5μA		75	-	
Forward Voltage			V_F			V
	1N4448WS, 1N914BWS	I_F=5.0mA		0.62	0.72	
	1N4148WS	I_F=10.0mA		-	1.0	
	1N4448WS, 1N914BWS	I_F=100.0mA		-	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=100Ω, I_{RR}=1mA		t_{rr}	-	4.0	ns

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

Fig. 1 Forward Voltage VS. Forward Current

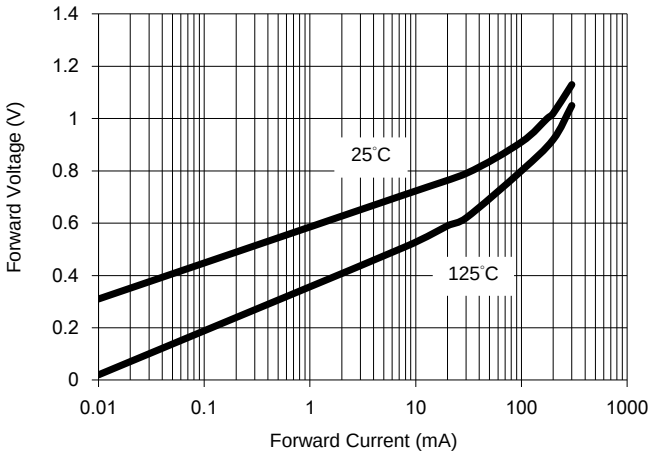


Fig. 2 Reverse Current vs Reverse Voltage

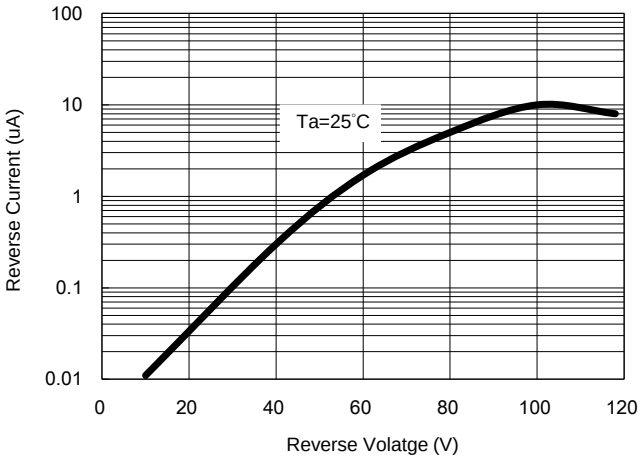


Fig. 3 Admissible Power Dissipation Curve

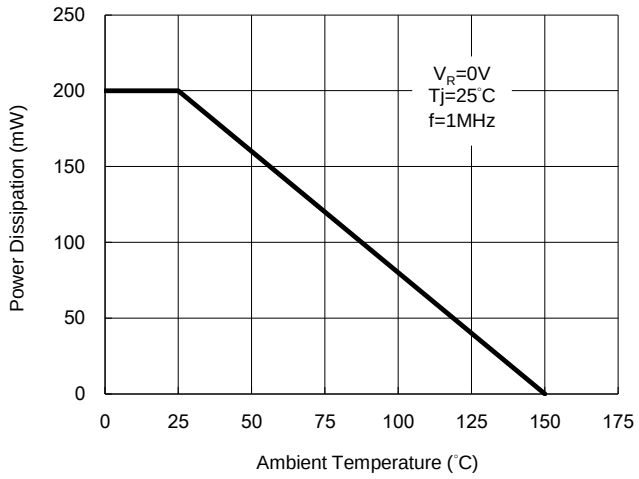
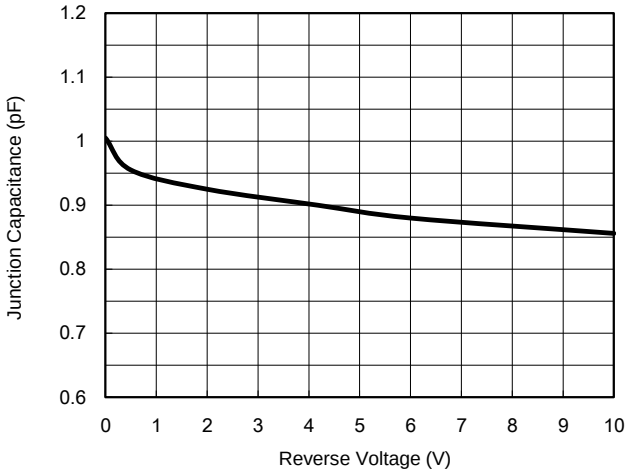


Fig. 4 Typical Junction Capacitance



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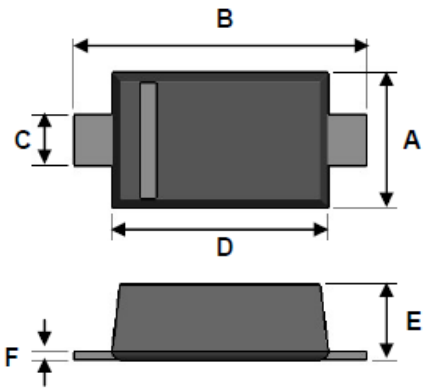
ORDERING INFORMATION				
PART NO.	**PACKING CODE**	**PACKING CODE SUFFIX**	**PACKAGE**	**PACKING**
1NxxxxWS (Note 1)	RR	G	SOD-323F	3K / 7" Reel

Note 1 : "xxxx" is Device Code from "4148" to "914B".

EXAMPLE				
PREFERRED P/N	**PART NO.**	**PACKING CODE**	**PACKING CODE**	**DESCRIPTION**
1N4148WS RRG	1N4148WS	RR	G	Green compound

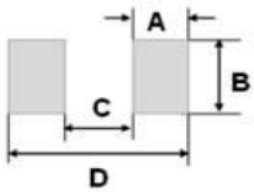
DIMENSIONS

SOD-323F



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.15	1.35	0.045	0.053
B	2.30	2.80	0.091	0.110
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	0.25	0.002	0.010

SUGGESTED PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
A	0.630	0.025
B	0.830	0.033
C	1.600	0.063
D	2.860	0.113

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

MARKING

Part No.	Marking
1N4148WS	S1
1N4448WS	S2
1N914BWS	S3

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