1N4148WSF–1N4448WSF(LS)

SURFACE MOUNT
FAST SWITCHING DIODE

REVERSE VOLTAGE – 75 Volts
FORWARD CURRENT – 0.15 Ampere

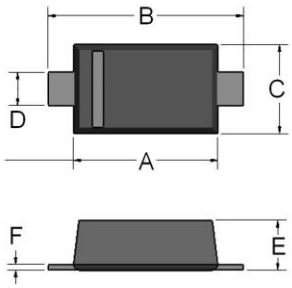
FEATURES

- Fast Switching Device (t_{rr} < 4.0ns)
- SOD-323F Package
- Surface Device Type Mounting
- General Purpose Diodes
- Green Epoxy Molding Compound
- Matte Tin (Sn) Lead Finish
- Band Indicates Cathode
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Polarity: Color Band Denotes Cathode

SOD-323F



SOD-323F		
DIM.	MIN.	MAX.
A	1.60	1.80
B	2.30	2.70
C	1.15	1.35
D	0.25	0.40
E	0.80	1.00
F	0.05	0.25
All Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = +25℃ unless otherwise specified

Characteristic	Symbol	1N4148WSF–1N4448WSF	Unit
Working Inverse Voltage	V_R	75	V
Non-Repetitive Peak Forward Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	150	mA
Power Dissipation	P_D	200	mW
Maximum Operating Temperature	T_J	+150	℃
Storage Temperature Range	T_{STG}	-65 to +150	℃

Electrical Characteristics @ T_A = +25℃ unless otherwise specified

Characteristic	Test Condition	Symbol	1N4148WSF	1N4448WSF	Unit
Breakdown Voltage	I_R = 100μA I_R = 5μA	V_B	100 75		V
Maximum Forward Voltage	I_F = 5mA I_F = 10mA I_F = 100mA	V_F	- 1000 -	720 - 1000	mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	V_R = 75V V_R = 20V	I_R	5 25		μA nA
Maximum Total Capacitance	V_R = 0V, f = 1MHz	C_T	4		pF
Maximum Reverse Recovery Time	I_F = 10mA I_R = 60mA R_L = 100Ω I_{rr} = 1mA	t_{rr}	4		ns

Notes:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See https://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

RATING AND CHARACTERISTIC CURVES
1N4148WSF–1N4448WSF

Figure 1. Power Dissipation vs. Ambient Temperature
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

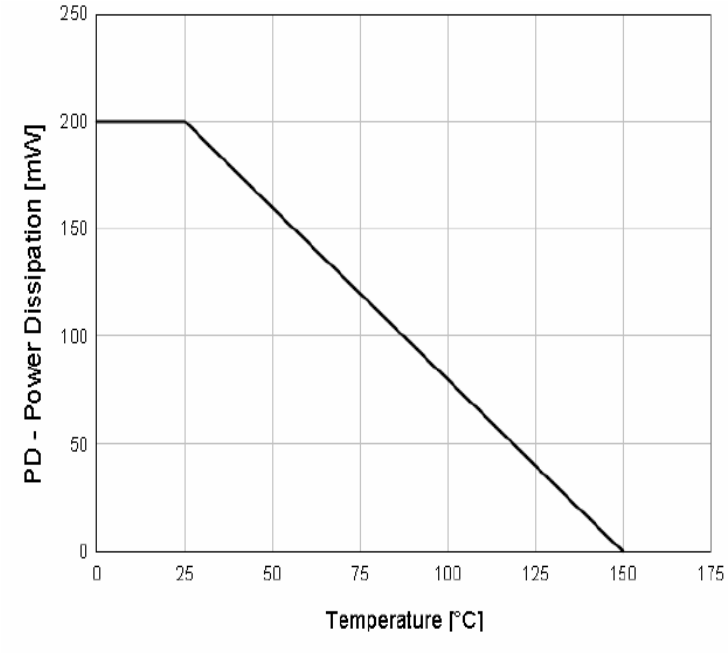


Figure 2. Total Capacitance

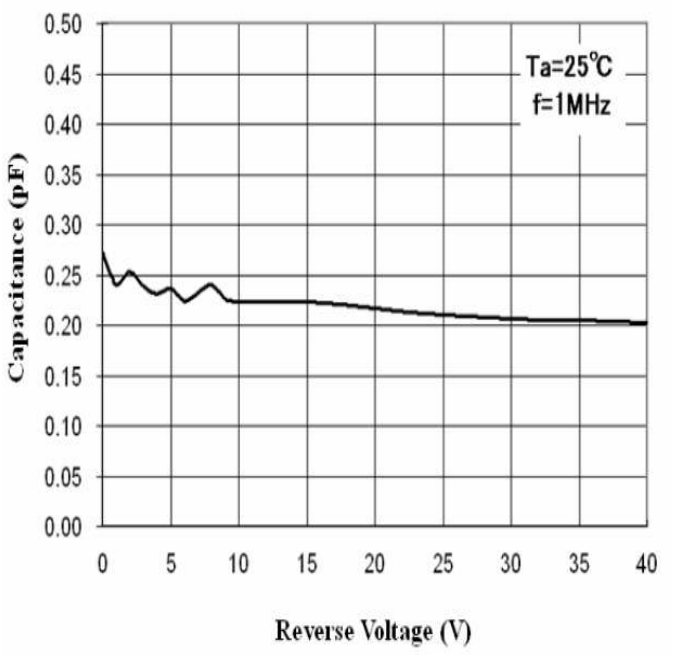


Figure 3. Reverse Current vs. Reverse Voltage

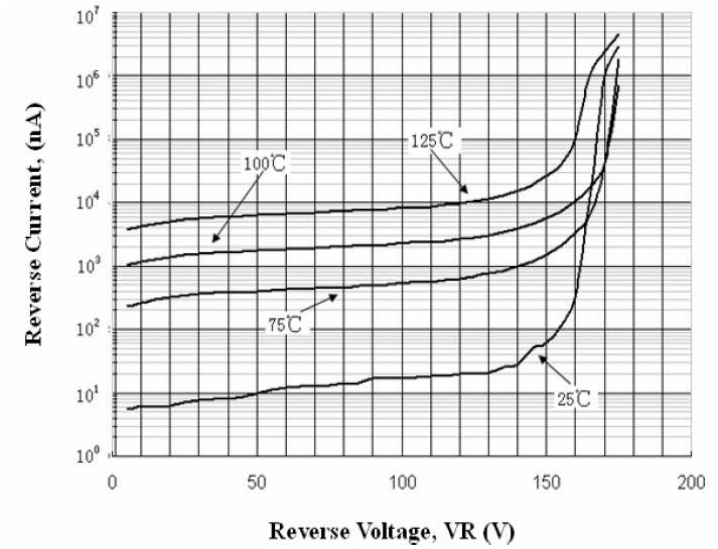
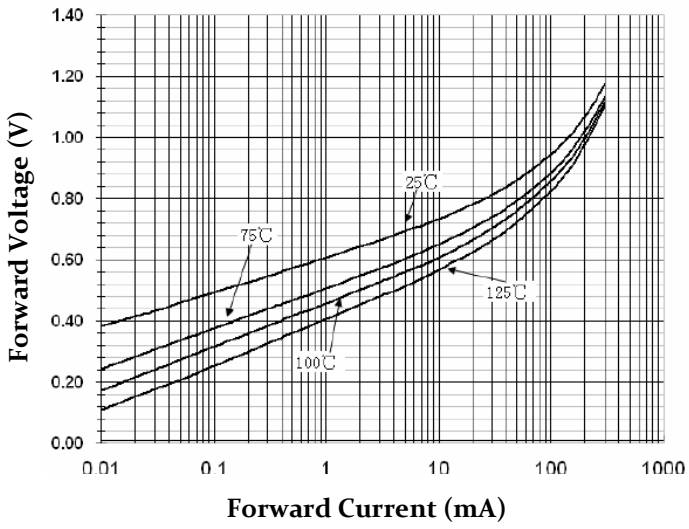


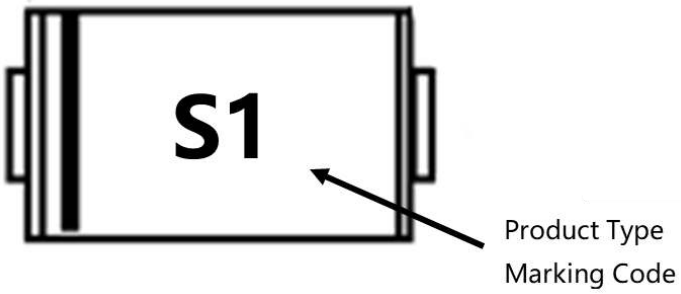
Figure 4. Forward Voltage vs. Ambient Temperature

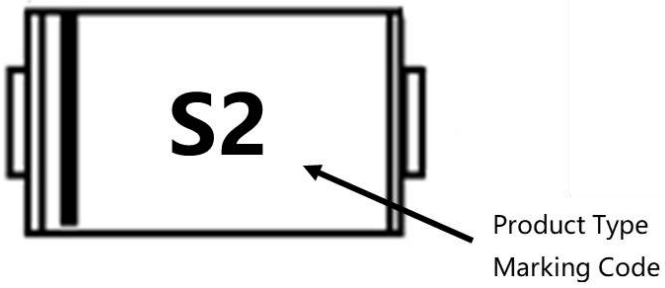


Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
1N4148WSF	SOD-323F	3000pcs	Tape & Reel
1N4448WSF	SOD-323F	3000pcs	Tape & Reel

Marking Information:





Device P/N	Marking Code	Equivalent Circuit Diagram
1N4148WSF	S1	
1N4448WSF	S2	

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