LITE-ON SEMICONDUCTORS

1N4148WF / 1N4448WF

SURFACE MOUNT
FAST SWITCHING DIODE

REVERSE VOLTAGE – 75 Volts
FORWARD CURRENT – 0.15 Ampere

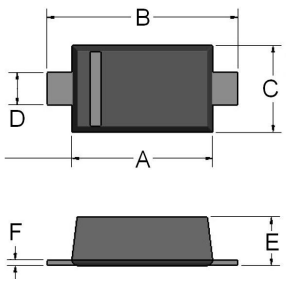
FEATURES

- Fast switching speed
- Ideally suited for automatic insertion
- For general purpose switching applications

MECHANICAL DATA

- Polarity: Indicated by cathode band
- Case: Flat lead SOD-123 Plastic
- Case material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture sensitivity: Level 1 per J-STD-020D
- Matte Tin(Sn) Lead finish
- Lead free in RoHS 2002/95/EC compliant

SOD-123F



SOD-123F		
DIM.	MIN.	MAX.
A	2.50	2.70
B	3.30	3.70
C	1.50	1.70
D	0.50	0.70
E	0.80	1.00
F	0.05	0.20
All Dimensions in millimeter		

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

Characteristic	Symbol	1N4148WF / 1N4448WF	Units
Non-Repetitive Peak Reverse Voltage	V_{RSM}	100	V
Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Peak Forward Surge Current (Pulse Width=1us)	I_{FSM}	2.0	A
Repetitive Peak Forward Current	I_{FRM}	300	mA
Average Rectified Output Current	I_O	150	mA
Power Dissipation	P_D	400	mW
Operating Temperature Range	T_J	-55~+150	℃
Storage Temperature Range	T_{STG}	-65~+150	℃

Electrical Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Test Condition	Symbol	1N4148WF	1N4448WF	Unit
Breakdown voltage	IR=100uA IR=5uA	BV	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		uA nA
Typical Diode Capacitance	V_R =0V,f=1MHz	C_D	4		pF
Reverse Recovery time	I_F=10mA I_R=60mA R_L=100Ω Irr=1mA,	trr	4		ns

RATING AND CHARACTERISTIC CURVES
1N4148WF / 1N4448WF

Fig.1 TYPICAL JUNCTION CAPACITANCE

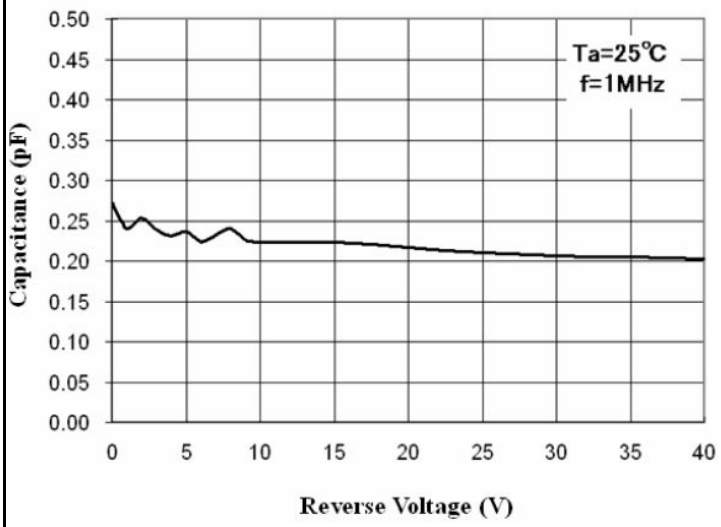


Fig.2 TYPICAL FORWARD CHARACTERISTICS

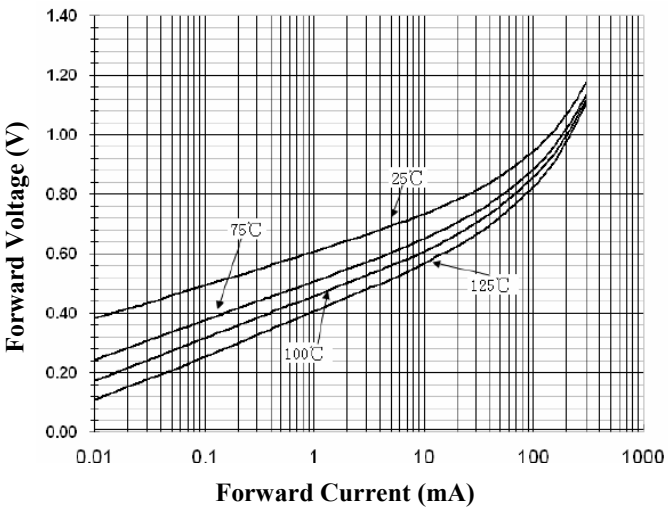


Fig.3 POWER DERATING CURVE

Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

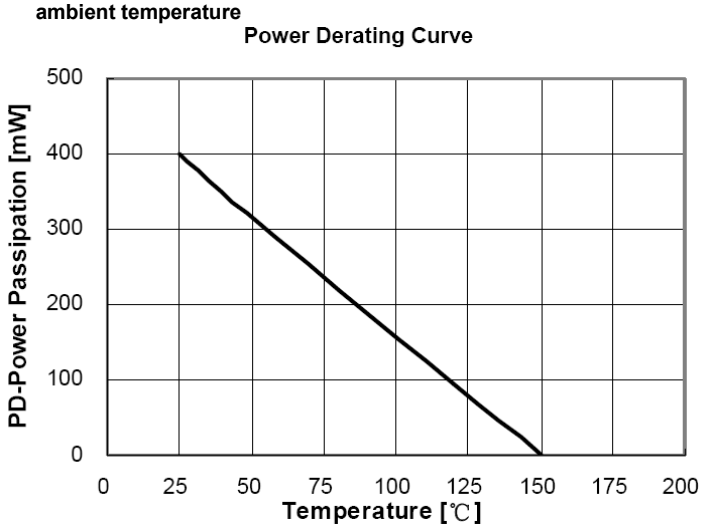
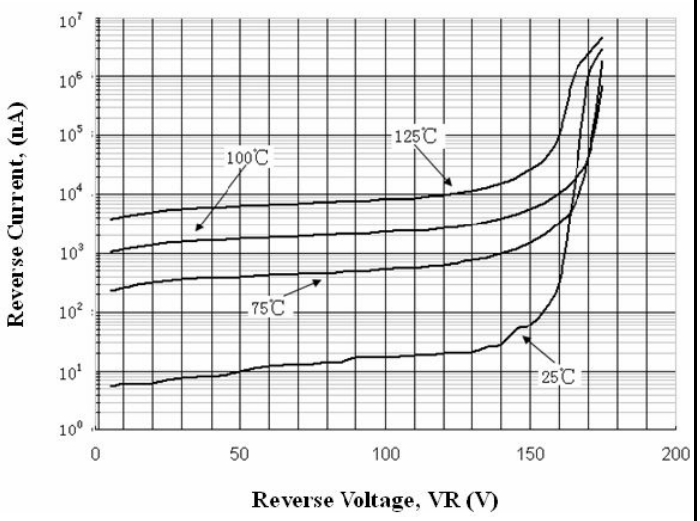


Fig.4 TYIPCAL REVERSE CHARACTERISTICS



Device Marking:

Device P/N	Marking code	Equivalent Circuit Diagram
1N4148WF	D1	1 ○—▶|—○ 2
1N4448WF	D2	1 ○—▶|—○ 2

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