

LED lights dedicated high-speed switching diode

FEATURES

- ◆For surface mounted applications
- ◆Glass Passivated Chip Junction
- ◆Fast reverse recovery time
- ◆Ideal for automated placement
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆Case: SOD-123FL
- ◆Terminals: Solderable per MIL-STD-750, Method 2026
- ◆Approx. Weight: 15mg /0.00053oz

Absolute Maximum Ratings at 25 °C


Parameter	Symbols	1N4148WL	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	75	V
Continuous Forward Current	I_F	150	mA
Non-reptitive Peak Forward Surge Current at 1ms	I_{FSM}	4	A
Total Power Dissipation	P_{tot}	400	mA
Typical Thermal Resistance ⁽¹⁾	$R_{\theta JA}$	450	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

(1) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Characteristics at $T_a = 25\text{ °C}$

Parameter	Symbols	1N4148WL	Units
Reverse BreakdownVoltage at $I_R=1\mu A$	$V_{(BR)R}$	75	V
Maximum Forward Voltage	at 1 mA	0.715	V
	at 10 mA	0.855	
	at 50 mA	1.00	
	at 150 mA	1.25	
Peak Reverse Current	at $V_R=20V\ T_j=25\text{ °C}$	0.025	uA
	at $V_R=75V\ T_j=25\text{ °C}$	1	
	at $V_R=25V\ T_j=150\text{ °C}$	30	
	at $V_R=75V\ T_j=150\text{ °C}$	50	
Typical Junction Capacitance	C_j	5	pF
Maximum Reverse Recovery Time	T_{rr} Typical	4	nS

Pinning

1.Cathode	2.Anode
	
SOD-123FL	

Marking Code

1N4148WL	W1
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Fig.1 Forward Current Derating Curve

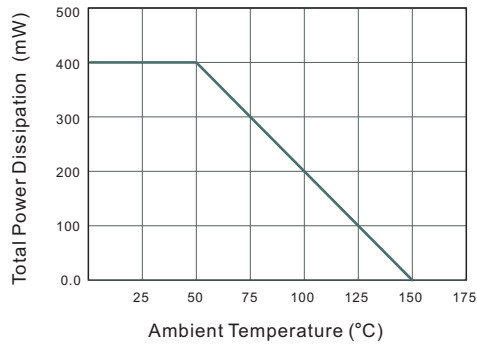


Fig.2 Typical Reverse Characteristics

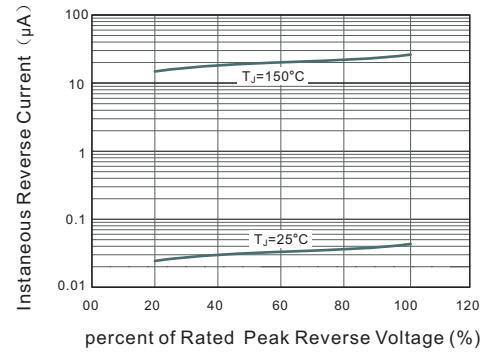


Fig.3 Typical Instaneous Forward Characteristics

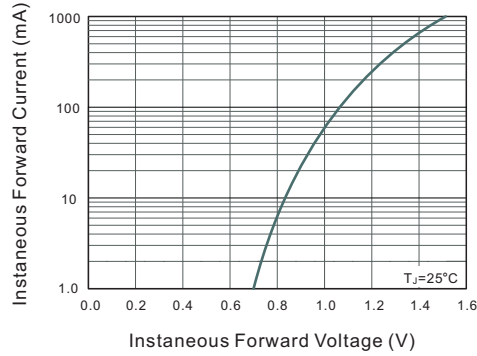
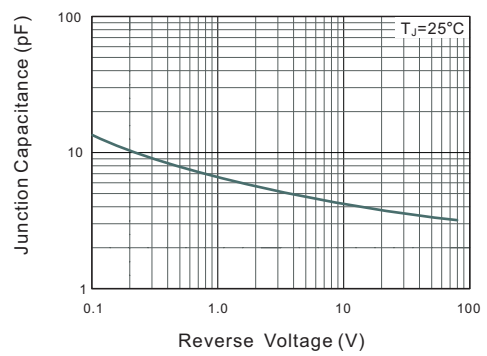


Fig.4 Typical Junction Capacitance



Ordering information

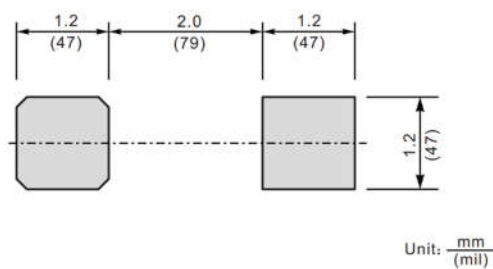
Package	Packing Description	Packing Quantity
SOD-123FL	Tape/Reel, 13" reel	10000PCS/Reel 100000PCS/Carton
	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-123FL

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.3	35	43
C	0.12	0.20	4.7	7.9
D	2.6	2.9	102	114
E	1.7	1.9	67	75
e	0.8	1.1	31	43
g	0.7	0.9	28	35
HE	3.5	3.8	138	150
∠	7°			

The recommended mounting pad size



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