



LED lights dedicated high-speed switching diode

**FEATURES**

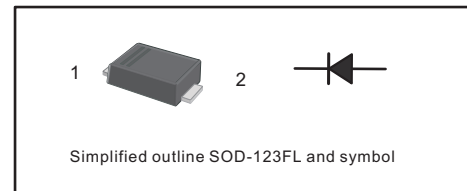
- For surface mounted applications
- Glass Passivated Chip Junction
- Fast reverse recovery time
- Ideal for automated placement
- Lead free in comply with EU RoHS 2011/65/EU directives

**MECHANICAL DATA**

- Case: SOD-123FL
- Approx. Weight:15mg 0.00053oz

**PINNING**

PIN	DESCRIPTION
1	Cathode
2	Anode



**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	$I_F$	300	mA
Non-reptitive Peak Forward Surge Current at 1ms	$I_{FSM}$	4	A
Total Power Dissipation	$P_{tot}$	400	mW
Typical Thermal Resistance <sup>(1)</sup>	$R_{\theta JA}$	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 Breakdown Voltage at $I_R = 1\mu A$	$V_{(BR)R}$	75	V
Maximum Forward Voltage at 1 mA at 10 mA at 50 mA at 150 mA at 300 mA	$V_F$	0.715 0.855 1.00 1.25 1.5	V
Peak Reverse Current at $V_R = 20V$ $T_j = 25\text{ °C}$ at $V_R = 75V$ $T_j = 25\text{ °C}$ at $V_R = 25V$ $T_j = 150\text{ °C}$ at $V_R = 75V$ $T_j = 150\text{ °C}$	$I_R$	0.025 1 30 50	$\mu A$
Typical Junction Capacitance $f = 1MHz, V_R = 4V$	$C_j$	5	pF
Maximum Reverse Recovery Time	$t_{rr}$ Typical	8	ns



Fig.1 Power Derating Curve

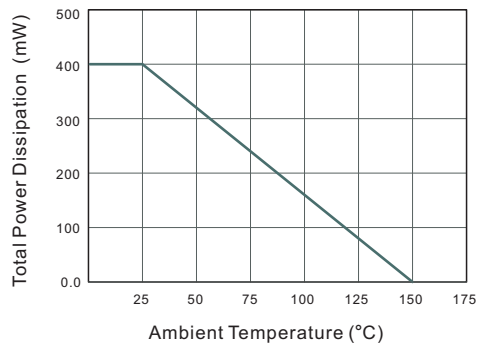


Fig.2 Typical Reverse Characteristics

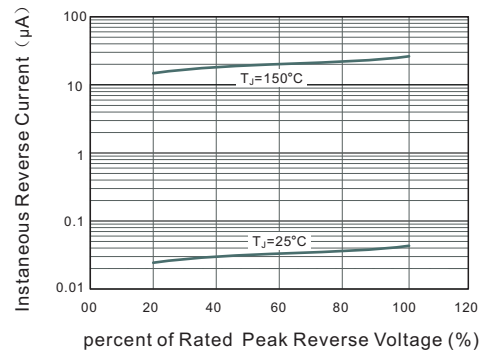


Fig.3 Typical Instantaneous Forward Characteristics

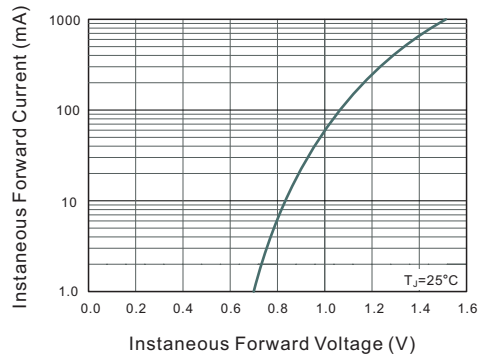
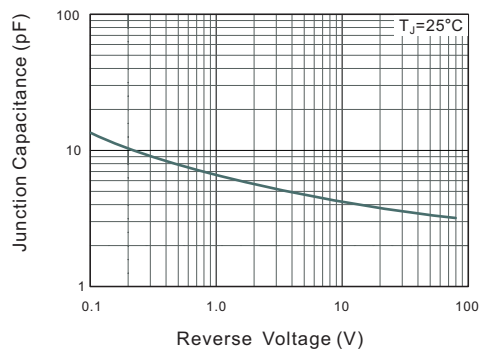


Fig.4 Typical Junction Capacitance

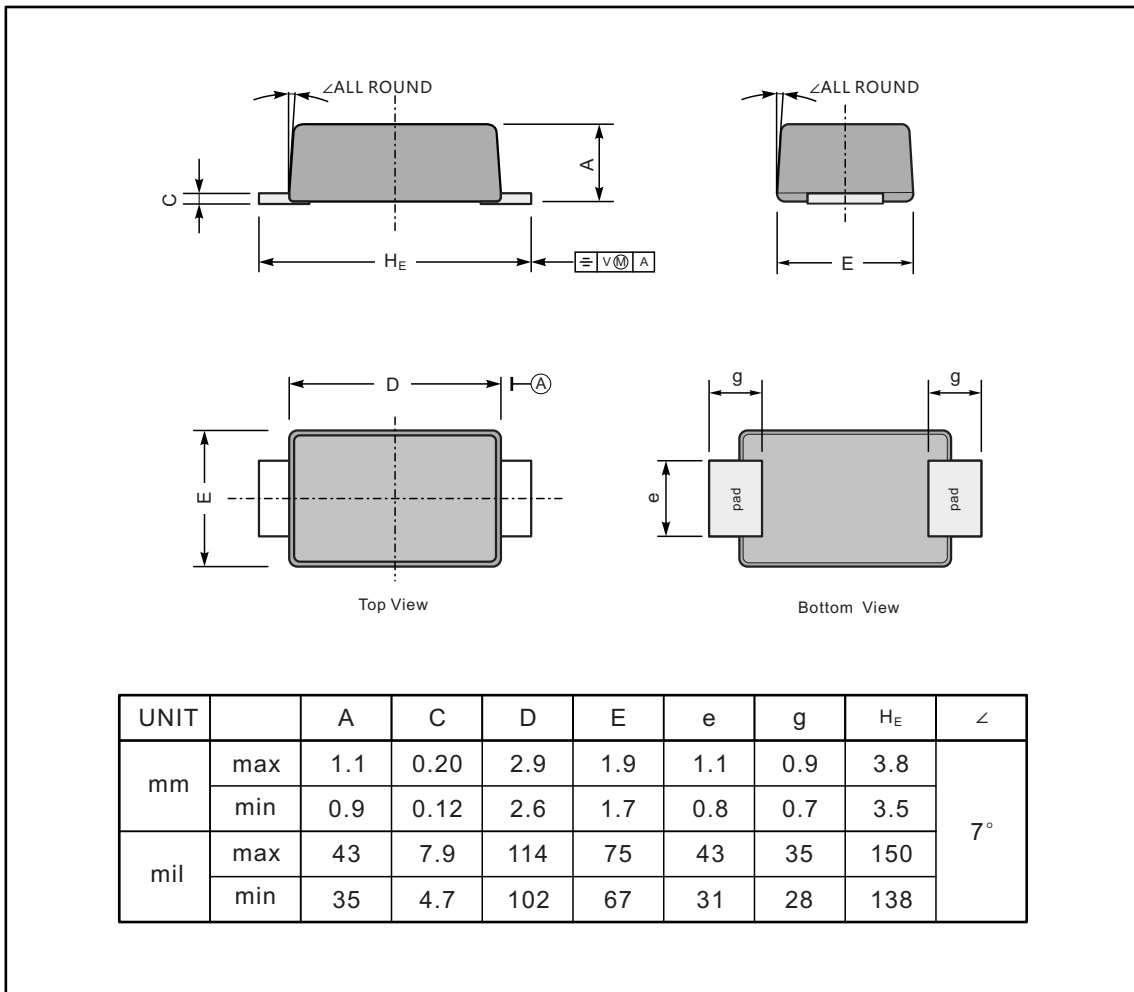




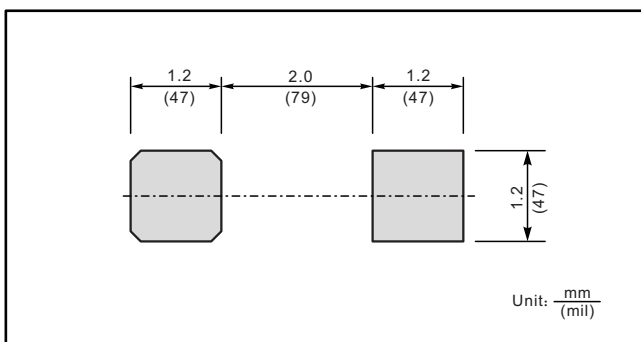
**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads

SOD-123FL



**The recommended mounting pad size**



**Marking**

Type number	Marking code
1N4148WL	T4

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