

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

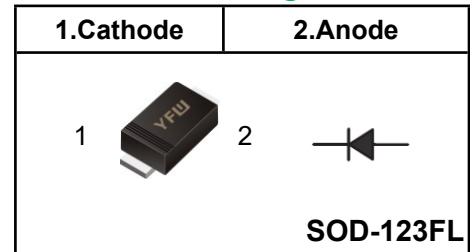
Absolute Maximum Ratings at 25 °C

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 °C

Parameter	Symbols	1N4148WL	Units
Reverse Breakdown Voltage at IR=1μA	$V_{(BR)R}$	75	V
Maximum Forward Voltage	V_F	at 1 mA	0.715
		at 10 mA	0.855
		at 50 mA	1.00
		at 150 mA	1.25
Peak Reverse Current	I_R	at V _R =20V T _j =25°C	0.025
		at V _R =75V T _j =25°C	1
		at V _R =25V T _j =150°C	30
		at V _R =75V T _j =150°C	50
Typical Junction Capacitance	C_j	5	pF
Maximum Reverse Recovery Time	T_{rr} Typical	4	nS

Pinning

Marking Code

1N4148WL	W1
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Fig.1 Forward Current Derating Curve

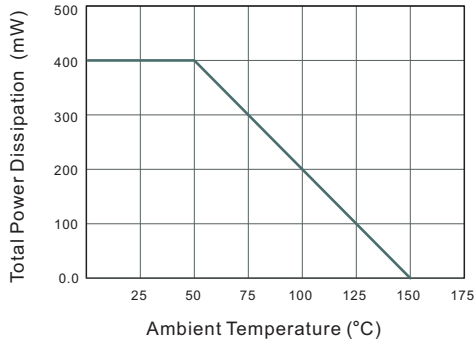


Fig.2 Typical Reverse Characteristics

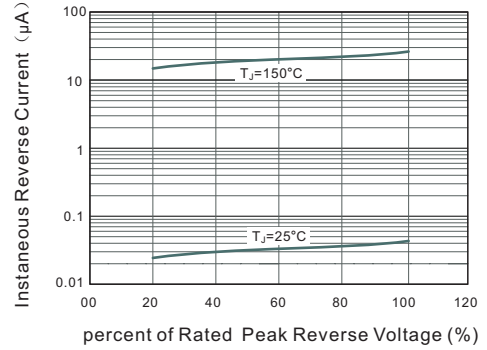


Fig.3 Typical Instaneous Forward Characteristics

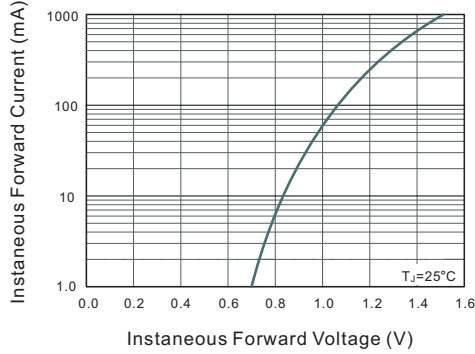
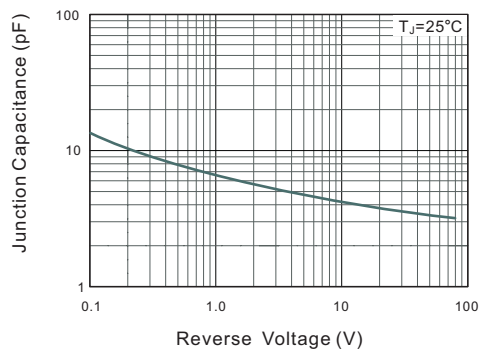
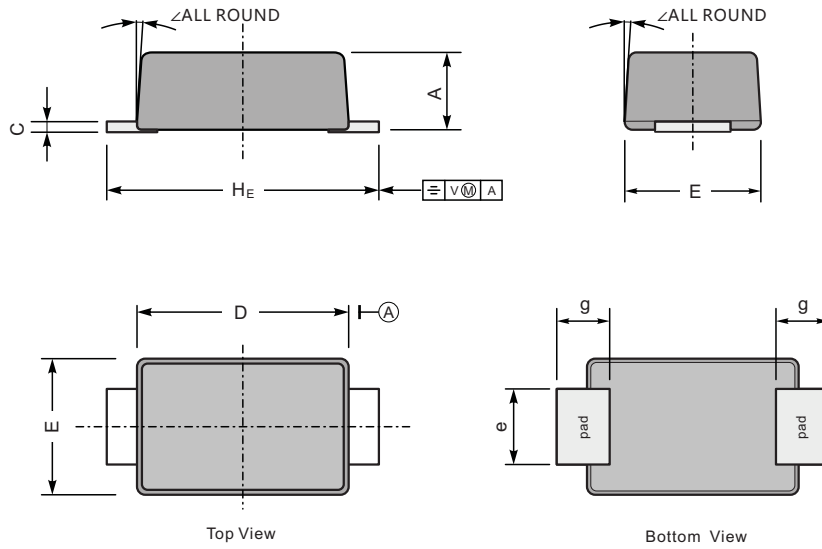


Fig.4 Typical Junction Capacitance



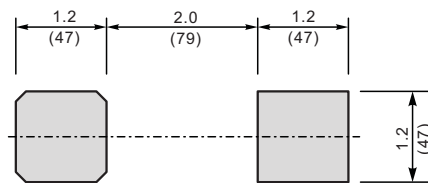
Package Outline SOD-123FL

Plastic surface mounted package; 2 leads



UNIT		A	C	D	E	e	g	H _E	\angle
mm	max	1.3	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

The recommended mounting pad size



Unit: $\frac{\text{mm}}{\text{mil}}$

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOD-123FL	Tape/Reel, 13" reel	10000	EIA-481-1
	Tape/Reel, 7" reel	3000	EIA-481-1