

1N4148W

DATASHEET

Specification Revision History:

Version	Date	Description
V1.0	2021/06	New
V1.1	2023/07	Modify Ordering Information
V1.2	2024/02	Modify Ordering Information
V1.3	2025/05	Add application precautions and overall typesetting.

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

Top View And Pinning



1、Cathode

2、Anode

SOD-123

Ordering Information

Product Model	Package Type	Packing	Packing Qty
1N4148W(GMIC)	SOD-123	REEL	3000PCS/REEL
1N4148W	SOD-123	REEL	3000PCS/REEL

Absolute Maximum Ratings at 25°C

Parameter	Symbols	1N4148W	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-repetitive Peak Forward Surge Current at 1 ms	I_{FSM}	4	A
Total Power Dissipation	P_{tot}	400	mW
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbols	1N4148W	Units
Reverse Breakdown Voltage at $I_R = 1\mu\text{A}$	$V_{(BR)R}$	75	V
Maximum Forward Voltage	V_F	0.715 0.855 1.00 1.25 1.5	V
Peak Reverse Current	I_R	0.025 1 30 50	μA
Typical Junction Capacitance $f = 1\text{ MHz}, V_R = 4\text{V}$	C_j	5	pF
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr} Typical	8	ns

(1) Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$

Typical Characteristics

Fig.1 Power Derating Curve

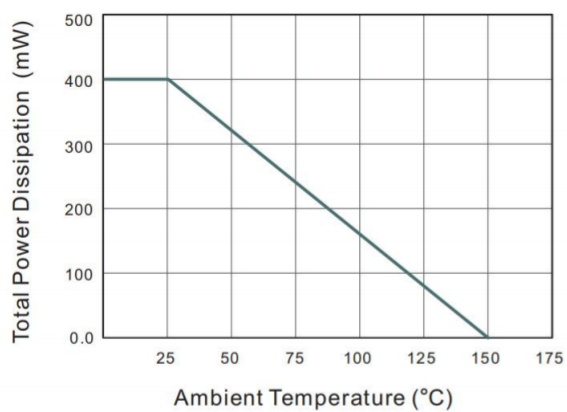


Fig.2 Typical Reverse Characteristics

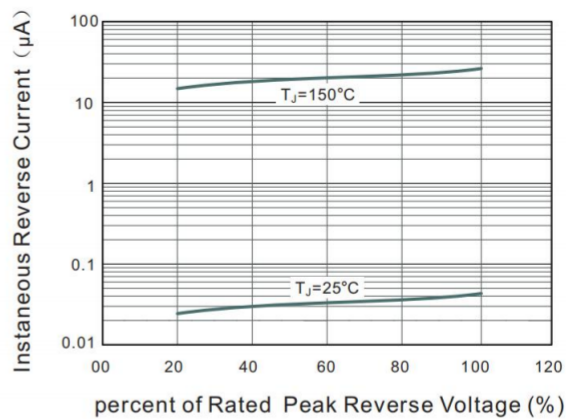


Fig.3 Typical Instantaneous Forward Characteristics

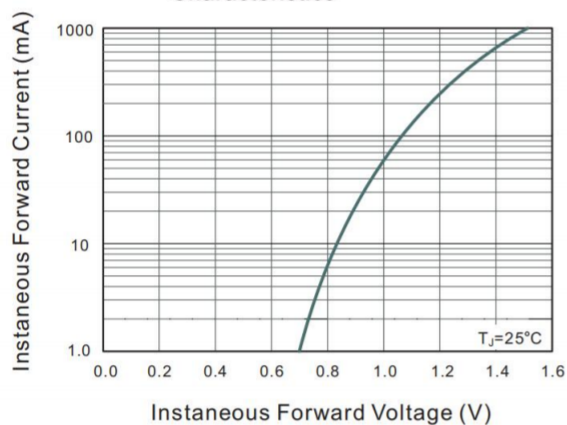
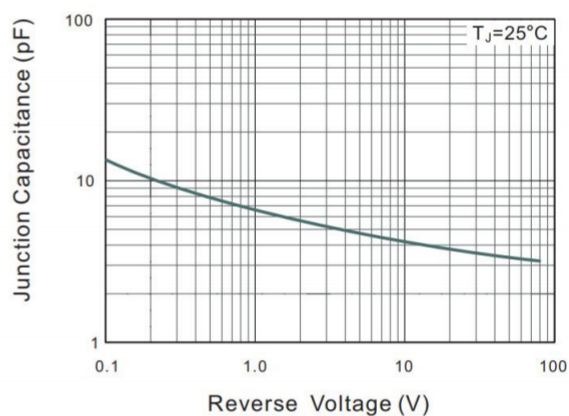
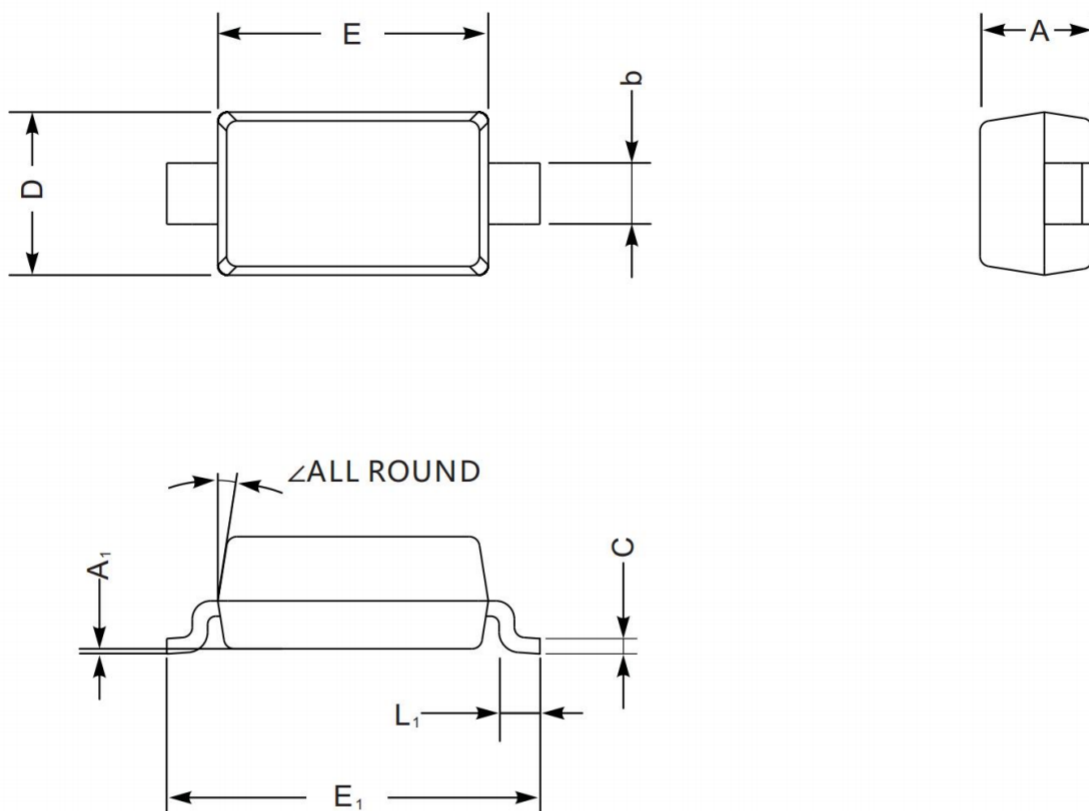


Fig.4 Typical Junction Capacitance



Outline Dimensions

SOD-123



Symbol	Dimensions In Millimeters		Dimensions In Mil	
	Min	Max	Min	Max
A	0.90	1.30	35	51
C	0.09	0.22	3.5	8.7
D	1.50	1.80	59	71
E	2.50	2.80	98	110
E ₁	3.60	3.90	142	154
L ₁	0.25	0.45	10	18
b	0.50	0.70	20	28
A ₁	—	0.20	—	8
$\angle$	9°			

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