

1N4148W T4

FEATURES

- For surface mounted applications
- Fast reverse recovery time
- Ideal for automated placement

MECHANICAL DATA

- Case: SOD-123
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 16mg/0. 00056oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Simplified outline SOD-123 and symbol

Absolute Maximum Ratings at 25 °C

Parameter	Symbols	1N4148W T4	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	75	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Non-reptitive Peak Forward Surge Current	I_{FSM}	0.5 1 4	A
		at 1s	
		at 1ms	
		at 1us	
Total Power Dissipation	P_{tot}	400	mW
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

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

Parameter	Symbols	1N4148W T4	Units
Reverse Breakdown Voltage at $I_R=1\mu A$	$V_{(BR)R}$	75	V
Maximum Forward Voltage	V_F	0.715 0.855 1.00 1.25	V
		at 1 mA	
		at 10 mA	
		at 50 mA	
		at 150 mA	
Peak Reverse Current	I_R	0.025 1 30 50	μA
		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 $V_R=75V$ $T_j=150\text{ °C}$	
Typical Junction Capacitance	C_j	2	pF
		f=1MHz, $V_R=0V$	
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	4	ns

(1) Measured with $I_F=I_R=10mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$

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Fig.1 Power Derating Curve

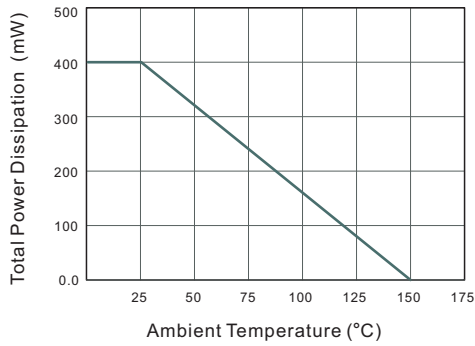


Fig.2 Typical Reverse Characteristics

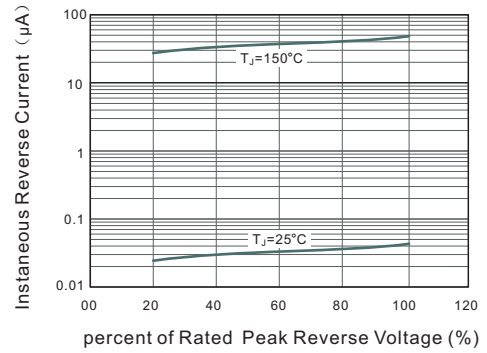


Fig.3 Typical Instantaneous Forward Characteristics

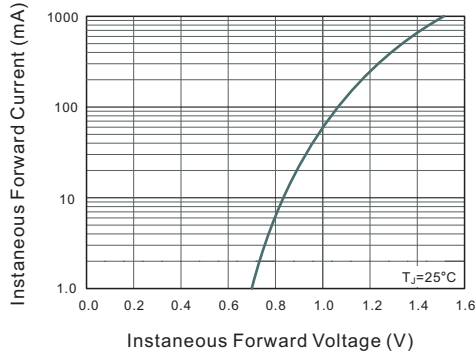
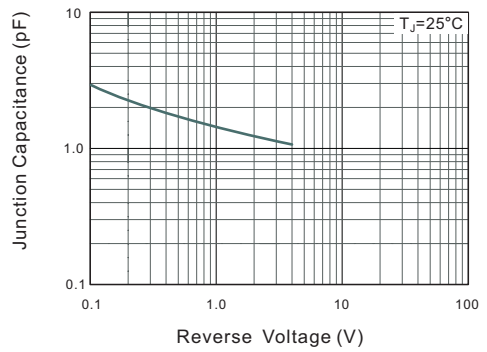


Fig.4 Typical Junction Capacitance

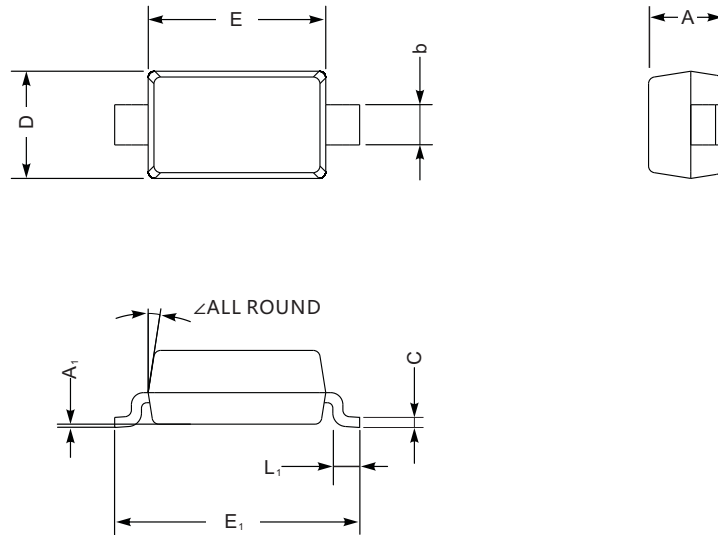


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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

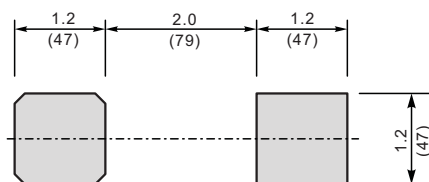
SOD-123



SOD-123W mechanical data

UNIT		A	C	D	E	E ₁	L ₁	b	A ₁	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

The recommended mounting pad size



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