



# 1N4148W

## 400mW Surface Mount Switching Diode

### FEATURES

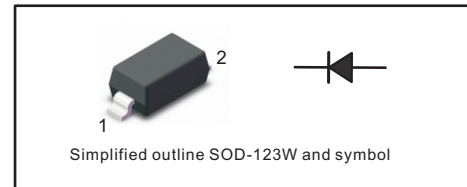
- For surface mounted applications
- Fast reverse recovery time
- Ideal for automated placement

### MECHANICAL DATA

- Case: SOD-123W
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 16mg/0.00056oz

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### 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
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Non-reptitive Peak Forward Surge Current	$I_{FSM}$	0.5 1 4	A
Total Power Dissipation	$P_{tot}$	400	mW
Typical Thermal Resistance (1)	$R_{\theta JA}$	280	°C/W
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150	°C

(1) P.C.B. mounted with 5\*5mm copper pad areas.

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

Parameter	Symbols	1N4148W	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
Peak Reverse Current	$I_R$	0.025 1 30 50	$\mu A$
Typical Junction Capacitance	$C_j$	2	pF
Maximum Reverse Recovery Time (2)	$t_{rr}$	4	ns

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



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### Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Power Derating Curve

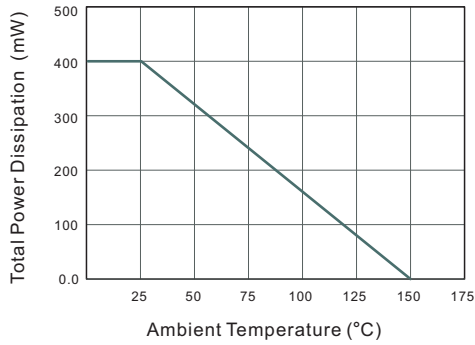


Fig.2 Typical Reverse Characteristics

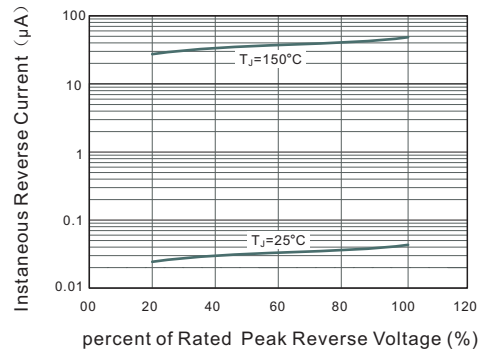


Fig.3 Typical Instantaneous Forward Characteristics

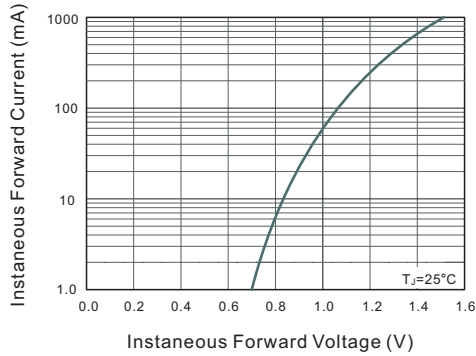
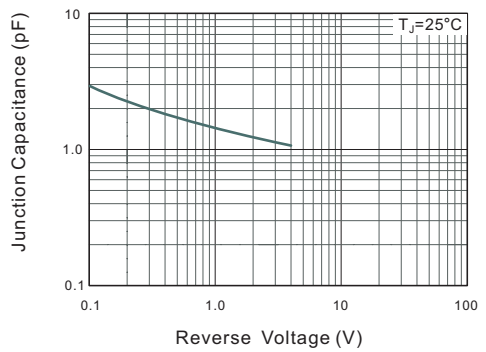


Fig.4 Typical Junction Capacitance





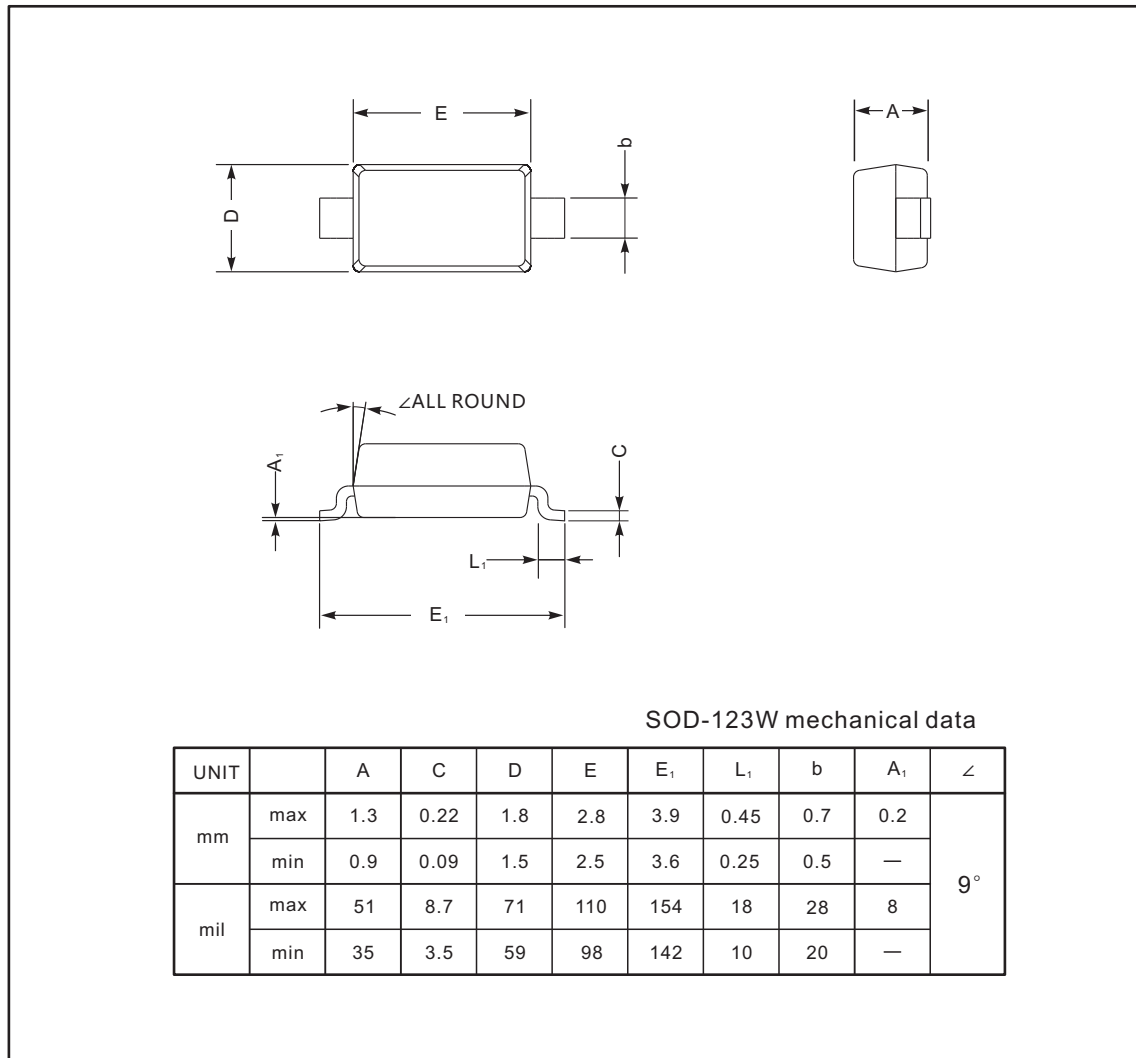
**1N4148W**

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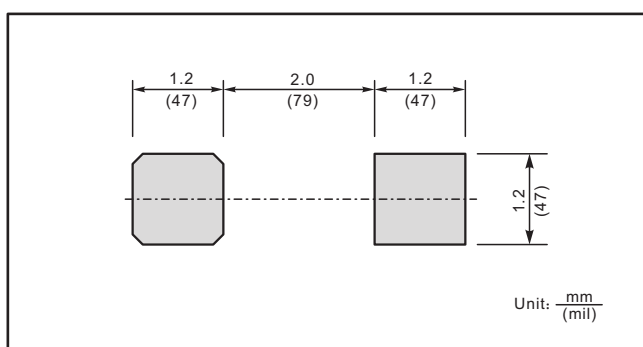
**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads

**SOD-123W**



**The recommended mounting pad size**



**Marking**

Type number	Marking code
1N4148W	T4

