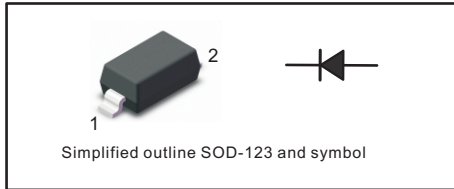


**PINNING**

PIN	DESCRIPTION
1	Cathode
2	Anode


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

**Absolute Maximum Ratings at 25 °C**

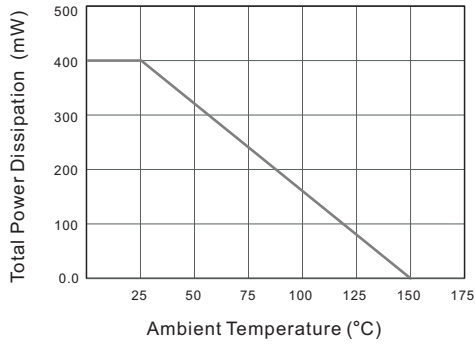
Parameter	Symbols	1N4148W	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Maximum RMS voltage	$V_{RMS}$	75	V
Continuous Forward Current	$I_F$	300	mA
Non-repetitive Peak Forward Surge Current at 1ms	$I_{FSM}$	4	A
Total Power Dissipation	$P_{tot}$	400	mW
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150	°C

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

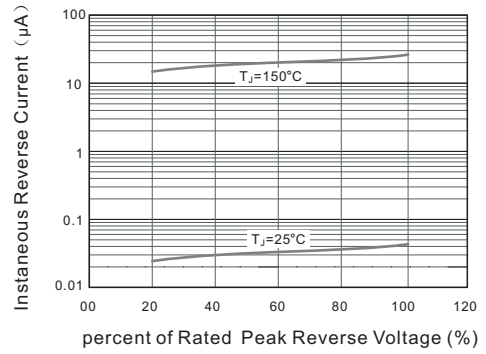
Parameter	Symbols	1N4148W	Units
Reverse Breakdown Voltage at $I_R = 1\mu A$	$V_{(BR)R}$	75	V
Maximum Forward Voltage at 1 mA at 10 mA at 50 mA at 150 mA at 300 mA	$V_F$	0.715 0.855 1.00 1.25 1.5	V
Peak Reverse Current at $V_R = 20V$ $T_j = 25\text{ °C}$ at $V_R = 75V$ $T_j = 25\text{ °C}$ at $V_R = 25V$ $T_j = 150\text{ °C}$ 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 <sup>(1)</sup>	$t_{rr}$ Typical	8	ns

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

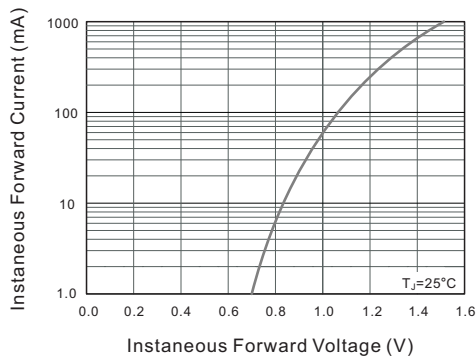
**Fig.1 Power Derating Curve**



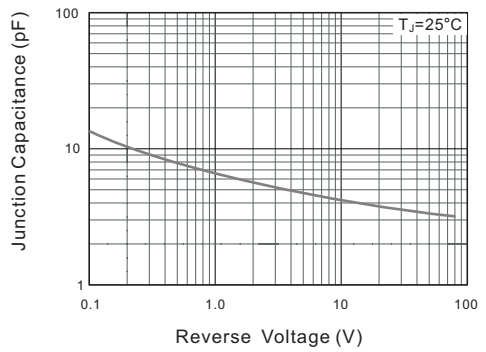
**Fig.2 Typical Reverse Characteristics**



**Fig.3 Typical Instantaneous Forward Characteristics**



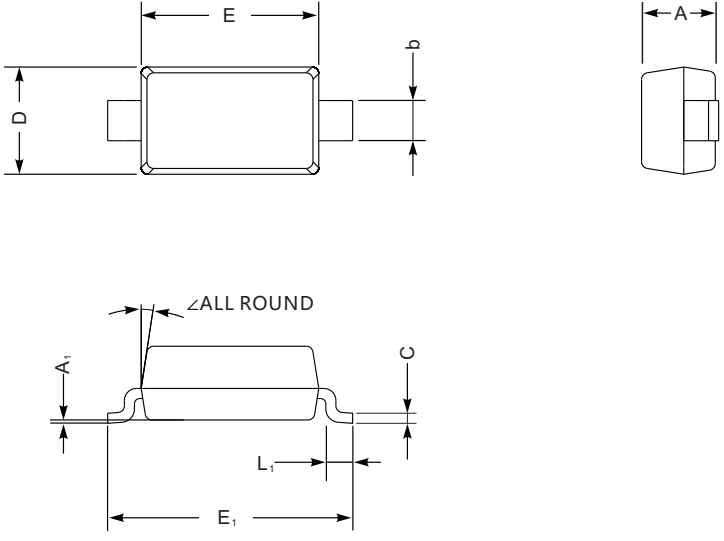
**Fig.4 Typical Junction Capacitance**



**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads

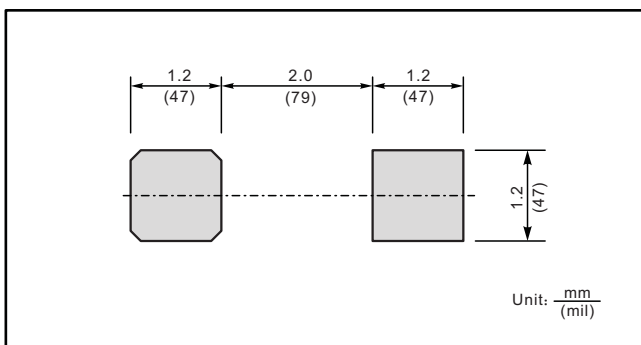
SOD-123



SOD-123 mechanical data

UNIT		A	C	D	E	E <sub>1</sub>	L <sub>1</sub>	b	A <sub>1</sub>	∠
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**



**Marking**

Type number	Marking code
1N4148W	T4