



1N4148W

Fast Switching Diodes

Features

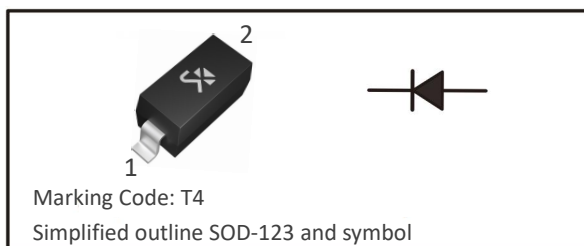
- For surface mounted applications
- Fast reverse recovery time
- Ideal for automated placement

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



Absolute Maximum Ratings@T_a = 25°C unless otherwise specified

Parameter		Symbol	1N4148W	Unit
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-Repetitive Peak Forward Surge Current	at 1s	I _{FSM}	0.5	A
	at 1ms		1	A
	at 1us		4	A
Total Power Dissipation		P _{tot}	400	mW
Typical Thermal Resistance ⁽¹⁾		R _{θJA}	280	°C/W
		R _{θJC}	100	°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

Electrical Characteristics@T_a = 25 °C, unless specified otherwise

Parameter	Symbol	Test Condition	1N4148W	Unit
Reverse Breakdown Voltage	V _{(BR)R}	I _R =1μA	100	V
Maximum Forward Voltage	V _F	I _F =1mA	0.715	V
		I _F =10mA	0.855	V
		I _F =50mA	1.00	V
		I _F =150mA	1.25	V
Peak Reverse Current	I _R	V _R =20V, T _J =25°C	0.025	μA
		V _R =75V, T _J =25°C	1	μA
Typical Junction Capacitance	C _J	V _R =0V, f=1MHz	2	pF
Maximum Revers Recovery Time	t _{rr}	I _F =I _R =10mA, I _{rr} =0.1*I _R , R _L =100Ω	4	ns



Typical Characteristics

Fig.1 Power Derating Curve

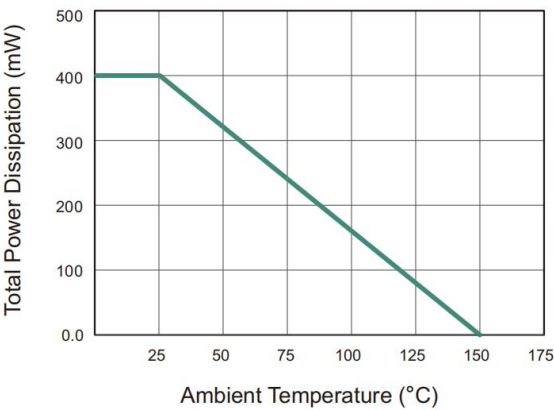


Fig.2 Typical Reverse Characteristics

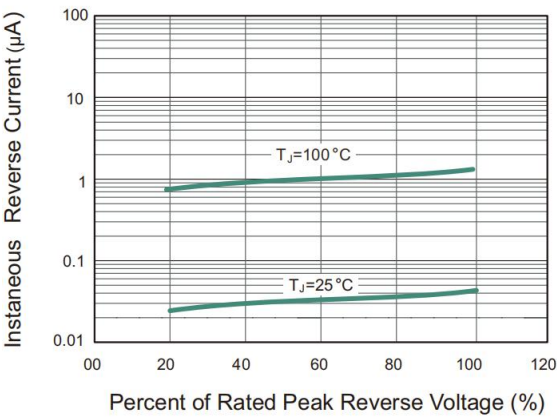


Fig.3 Typical Instantaneous Forward Characteristics

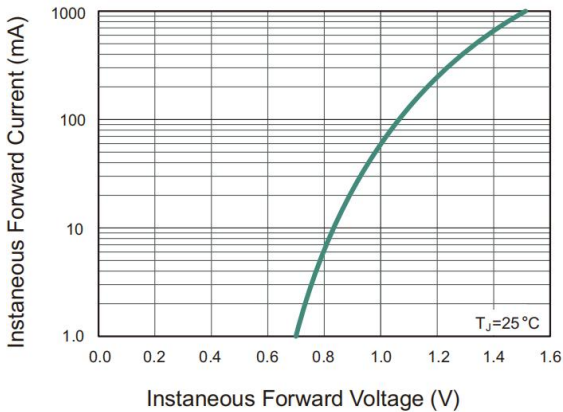
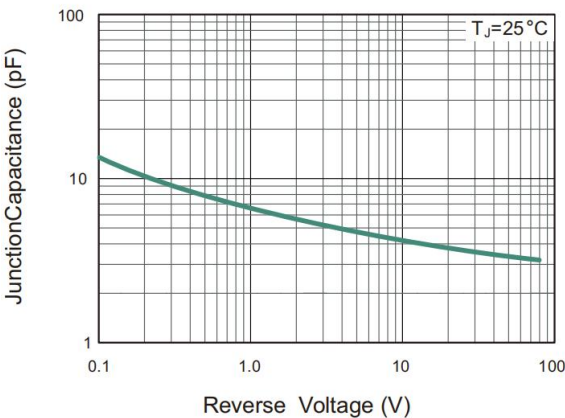


Fig.4 Typical Junction Capacitance



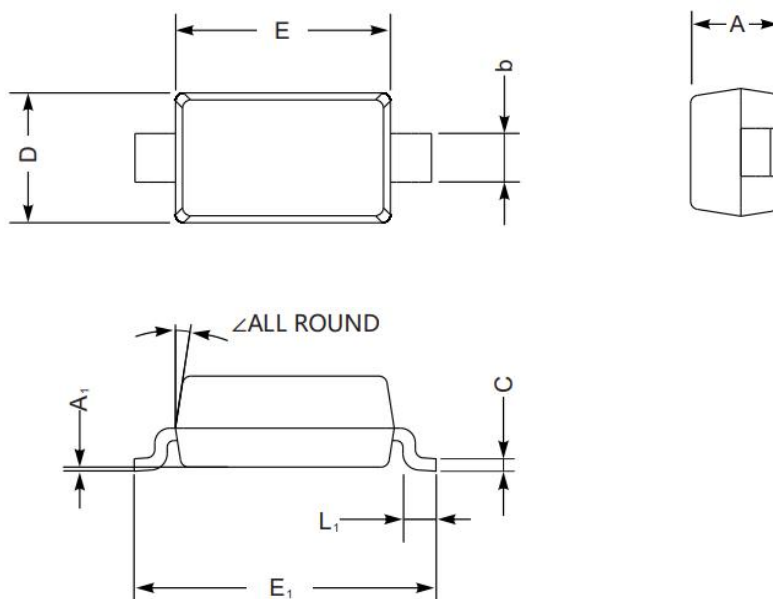


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Package Information

SOD-123

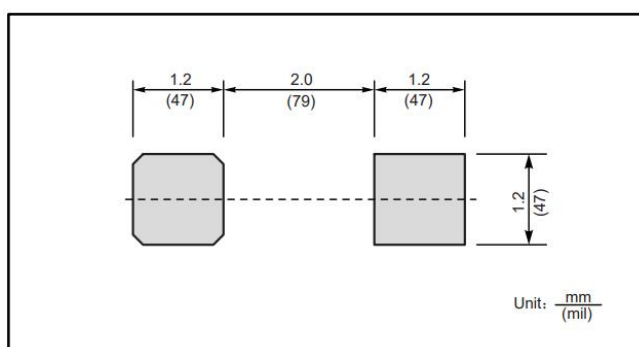
Dimensions in mm



SOD-123 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





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