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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Simplified outline SOD-123 and symbol

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-reptitive 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 °C

Parameter		Symbols	1N4148W	Units
Reverse BreakdownVoltage at I_R=1μA		$V_{(BR)R}$	75	V
Maximum Forward Voltage	at 1 m A at 10 m A at 50 m A at 150 m A 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°C at V_R=75V T_j=25°C at V_R=25V T_j=150°C at V_R=75V T_j=150°C	I_R	0.025 1 30 50	μA
Typical Junction Capacitance	f=1MHz,V_R=4V	C_j	5	pF
Maximum Reverse Recovery Time (1)		t_{rr} Typical	8	ns

(1) Measured with IF = 0.5 A, IR = 1 A, Irr = 0.25 A

Fig.1 Power Derating Curve

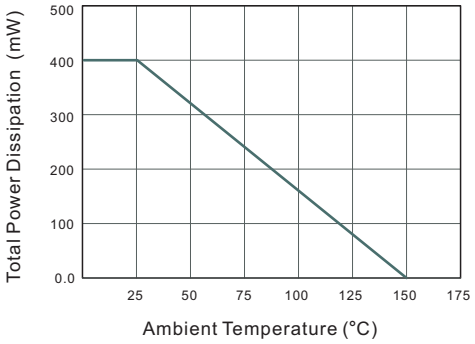


Fig.2 Typical Reverse Characteristics

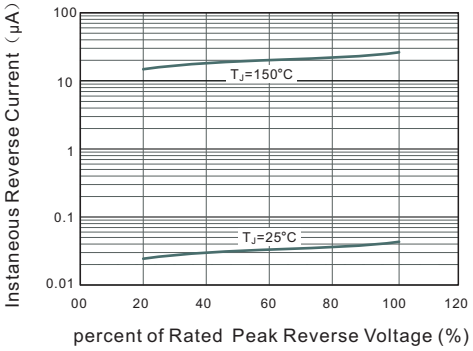


Fig.3 Typical Instaneous Forward Characteristics

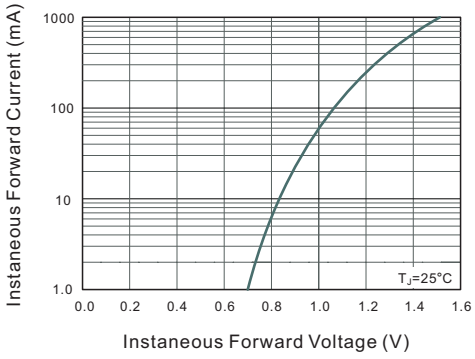
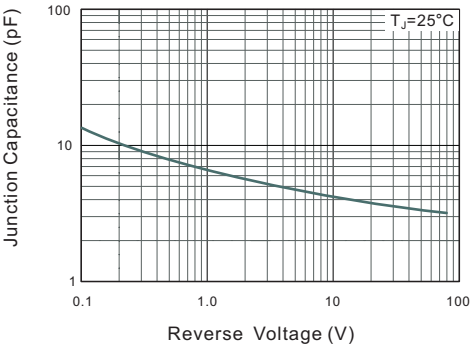


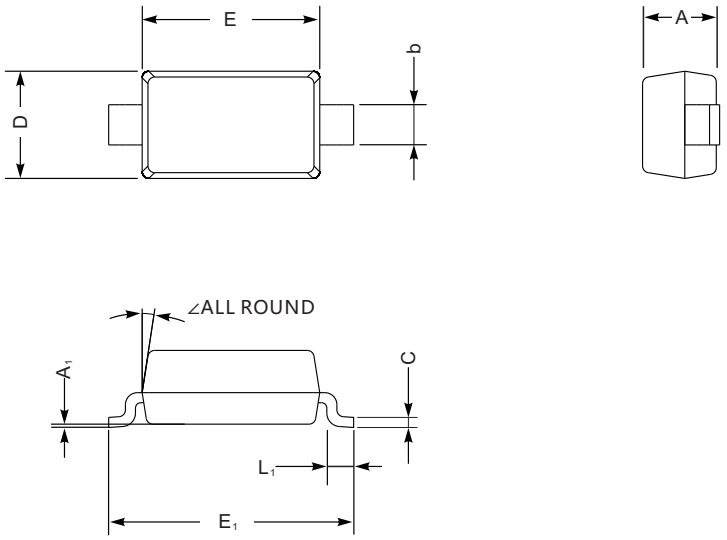
Fig.4 Typical Junction Capacitance



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

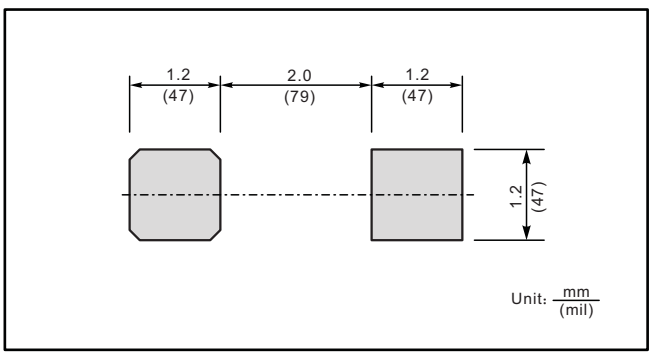
SOD-123



SOD-123 mechanical data

UNIT		A	C	D	E	E_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



Marking

Type number	Marking code
1N4148W	T4