

Features

1. For surface mounted applications
2. Glass Passivated Chip Junction
3. Fast reverse recovery time
4. Ideal for automated placement
5. Lead free in comply with EU RoHS 2011/65/EU directives

Mechanical Data

1. Case : JEDEC SOD-123FL molded plastic body
2. Terminals : Solderable per MIL-STD-750, Method 2026
3. Polarity : Color band denotes cathode end
4. Mounting Position : Any
5. Weight : 0.0007 ounce, 0.02 grams
6. Marking: T4

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}	2	A
Total Power Dissipation	P_{tot}	400	mW
Typical Thermal Resistance ⁽¹⁾	$R_{\theta JA}$	250	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

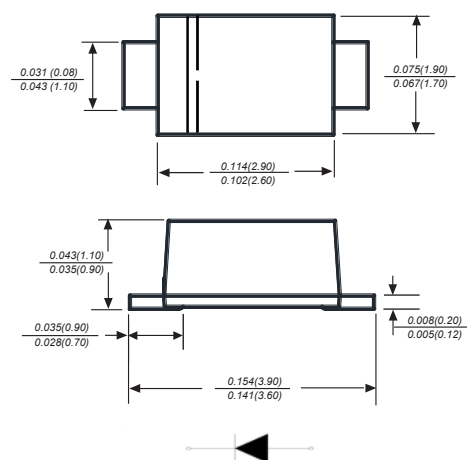
(1) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Characteristics at Ta=25°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	V
Peak Reverse Current at $V_R=20V$ $T_j=25^\circ C$ at $V_R=75V$ $T_j=25^\circ C$ at $V_R=25V$ $T_j=150^\circ C$ at $V_R=75V$ $T_j=150^\circ C$	I_R	0.025 1 30 50	μA
Typical Junction Capacitance	C_j	5	pF
Maximum Reverse Recovery Time	t_{rr} Typical	4	ns



SOD-123FL



Dimensions in inches and (millimeters)

Typical Characteristics

Fig.1 Forward Current Derating Curve

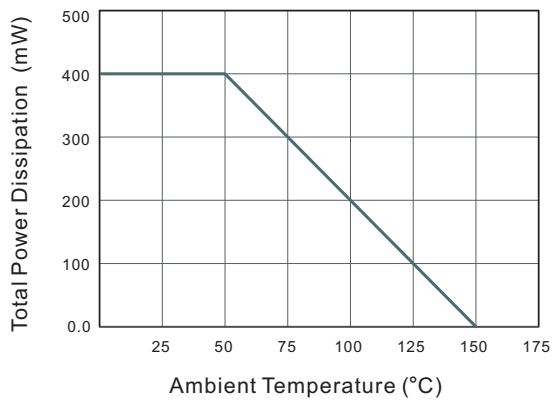


Fig.2 Typical Reverse Characteristics

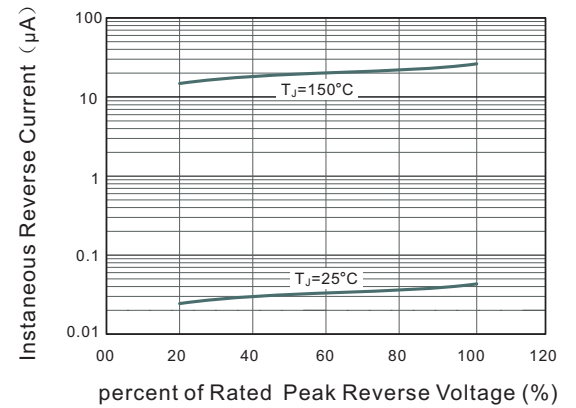


Fig.3 Typical Instantaneous Forward Characteristics

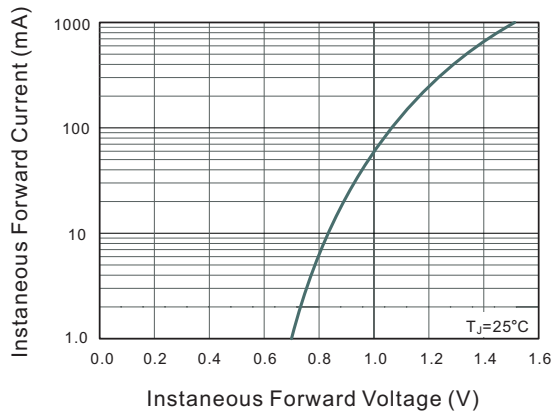
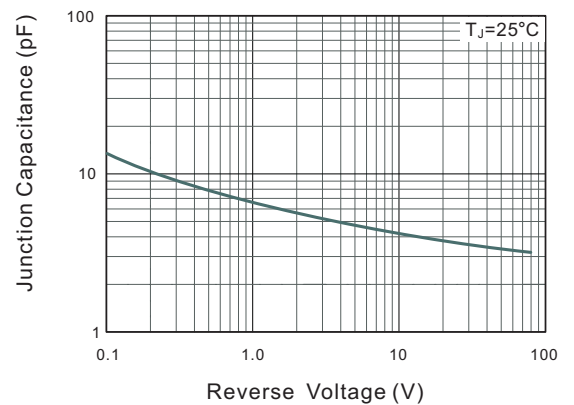
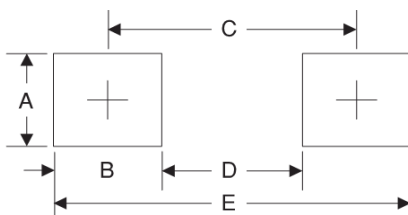


Fig.4 Typical Junction Capacitance



Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.2	0.047
B	1.2	0.047
C	3.2	0.126
D	2	0.079
E	4.4	0.173