1N4148WS

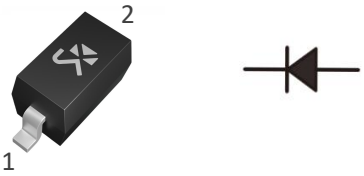
Fast Switching Diodes

Features

- For surface mounted applications
- Glass passivated chip junction
- Fast reverse recovery time
- Ideal for automated placement
- Lead free in comply with EURoHS 2011/65/EU directives

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Marking Code: T4
Simplified outline SOD-323 and symbol

Mechanical Data

- Case: SOD-323
- Terminals: Solderable per MIL-STD-750,Method 2026
- Approx.Weight: 5.48mg/0.00019oz

Absolute Maximum Ratings@T_a = 25℃ 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)		$R_{\theta JA}$	340	℃/W
		$R_{\theta JC}$	120	℃/W
Operating and Storage Temperature Range		T_J,T_{STG}	-55~+150	℃

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

Electrical Characteristics@T_a = 25 ℃, 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℃	0.025	μA
		V_R=75V, T_J=25℃	1	μA
		V_R=25V, T_J=150℃	30	μA
		V_R=75V, T_J=150℃	50	μA
Typical Junction Capacitance	C_J	V_R=0V, f=1MHz	2	pF
Maximum Reveres 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

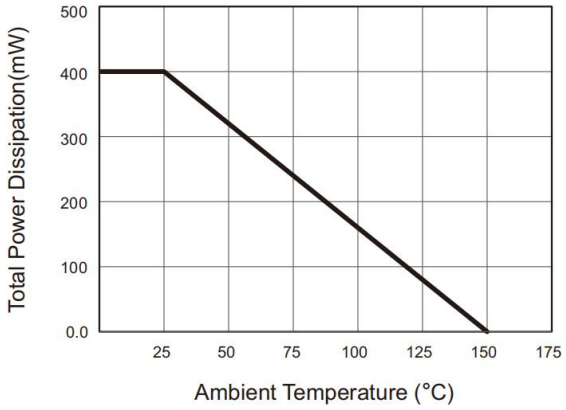


Fig.2 Typical Reverse Characteristics

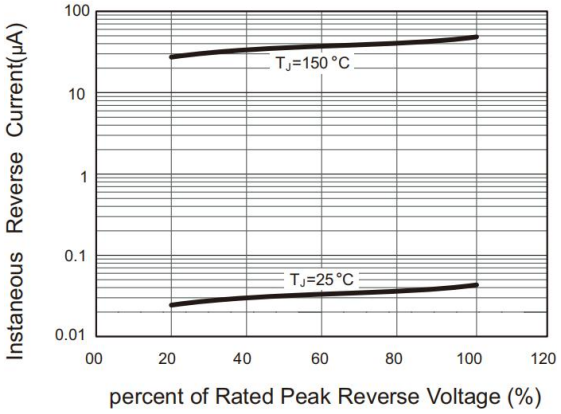


Fig.3 Typical Instaneous Forward Characteristics

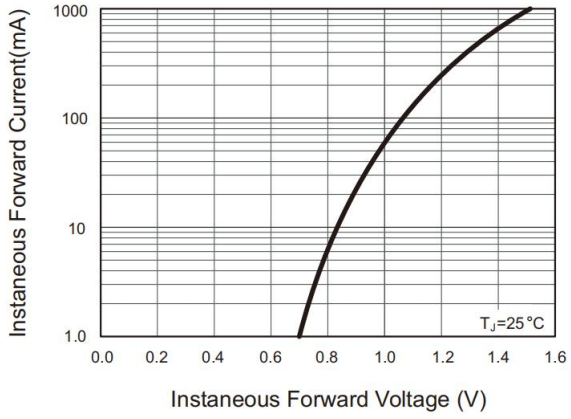
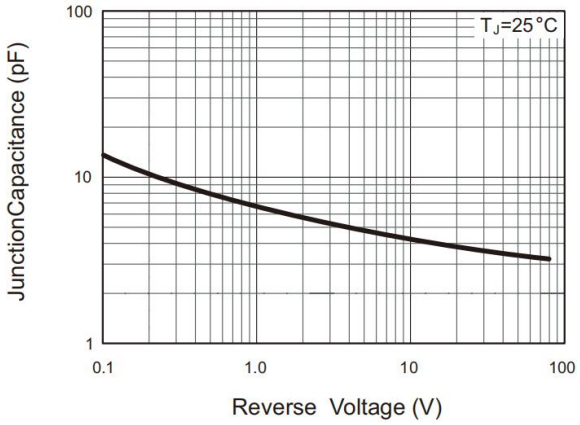


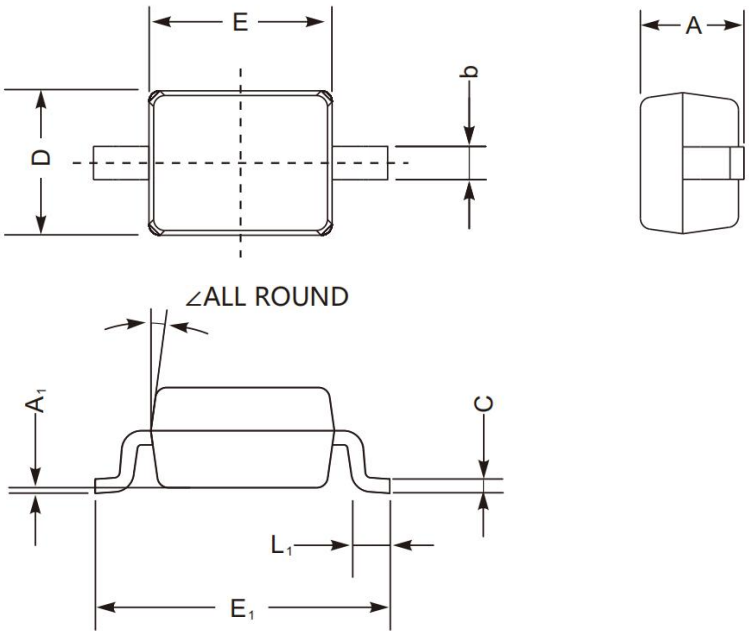
Fig.4 Typical Junction Capacitance



Package Information

SOD-123

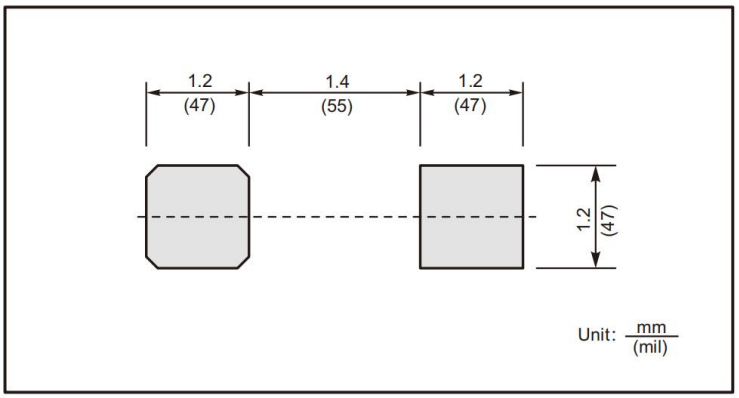
Dimensions in mm



SOD-323 mechanical data

UNIT		A	C	D	E	E_1	b	L_1	A_1	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	

The recommended mounting pad size



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