

Description

The 1N4148WT is silicon diode, SOD-523 plastic package.

Applications

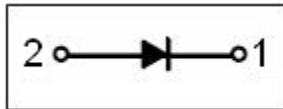
- Small signal diode

Features

- Fast switching diodes
- Halogen-free Product

V_{RRM}	I_F	I_{FSM}
100 V	150 mA	0.8 A

Equivalent Circuit & Pinning



PIN1:Cathode

PIN2:Anode

Marking

Marking	T4
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Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	75	V
Continuous Forward Current	I_F	150	mA
Non-repetitive Peak Forward Surge Current	I_{FSM} (t=1ms)	0.8	A
Power Dissipation	P_{tot}	150	mW
Junction Temperature	T_j	-55~150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=1\mu A$	75			V
Forward Voltage	V_F	$I_F=1mA$			0.71 5	V
		$I_F=10mA$			0.85 5	V
		$I_F=50mA$			1.00	
		$I_F=150mA$			1.25	
Instantaneous Reverse Current	I_R	$V_R=20V$ $T_j = 25^\circ C$			0.02 5	μA
		$V_R=75V$ $T_j = 25^\circ C$			1	
Junction Capacitance	C_j	$V_R=0V$ $f=1MHz$			2	pF
Maximum Reverse Recovery Time	t_{rr}	$I_F = 10mA$ $I_R = 10mA$ $I_{rr} = 1mA$ $R_L=100\Omega$			4	ns

Electrical Characteristic Curve

Fig.1 Power Derating Curve

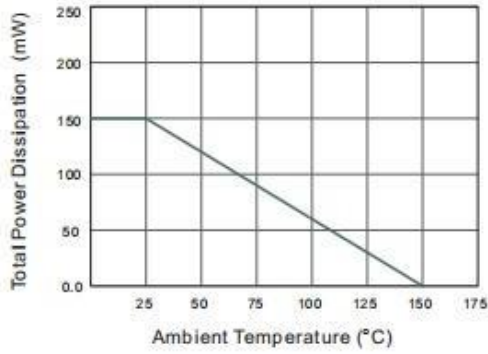


Fig.2 Typical Reverse Characteristics

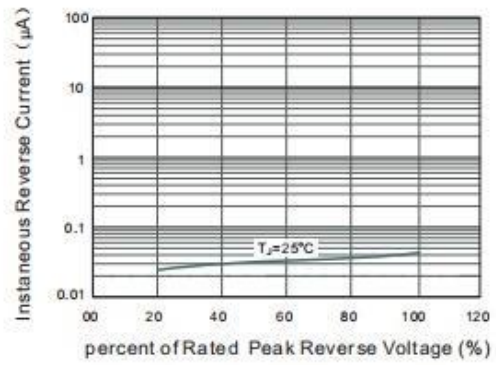


Fig.3 Typical Instantaneous Forward Characteristics

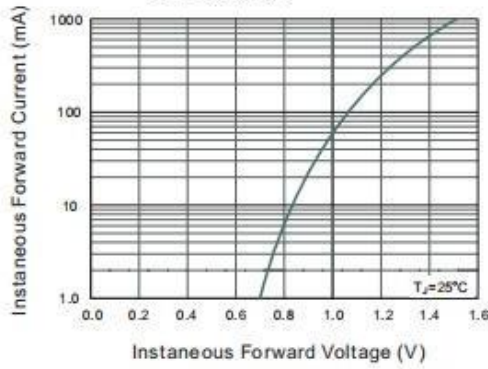
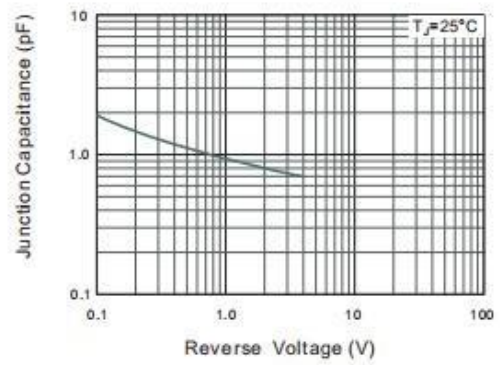
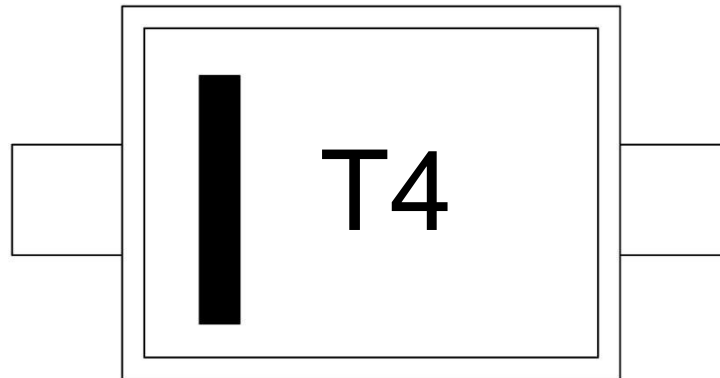


Fig.4 Typical Junction Capacitance



Marking Instructions



Note:

T4: Product Type.

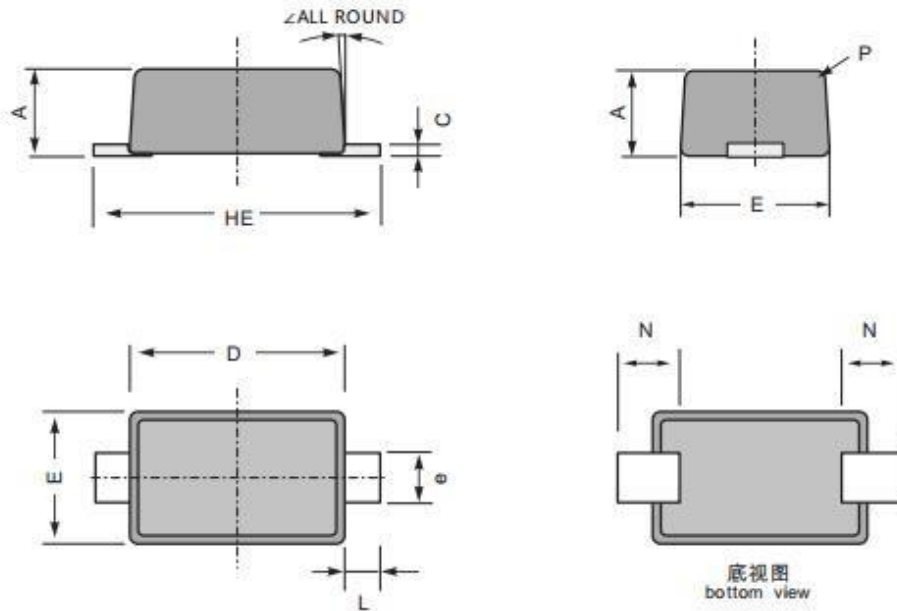
Packaging SPEC.

REEL INFORMATION

Package Type	Units					Dimension (unit: mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOD-523	3,000	10	30,000	6	180,000	7" x8	180x120x180	390x385x205

Package Outline Dimensions

SOD-523



UNIT		A	e	C	D	E	HE	N	L	P	∠
mm	max	0.77	0.35	0.15	1.30	0.99	1.70	0.35 ref	0.2 ref	R0.1 ALL ROUND	10° ±1°
	min	0.51	0.25	0.08	1.10	0.75	1.50				
mil	max	30	14	6	51	39	67	14 ref	8.0 ref	R4.0 ALL ROUND	
	min	20	10	3	43	30	59				