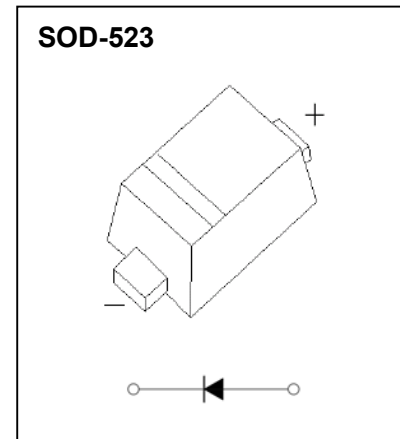


## 1N4148WT Fast Switching Diode

### Features

- ◆ Fast Switching Speed
- ◆ Surface Mount Package Ideally Suited for Automatic Insertion
- ◆ For General Purpose Switching Applications
- ◆ High Conductance

### Marking Information



### Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise specified)

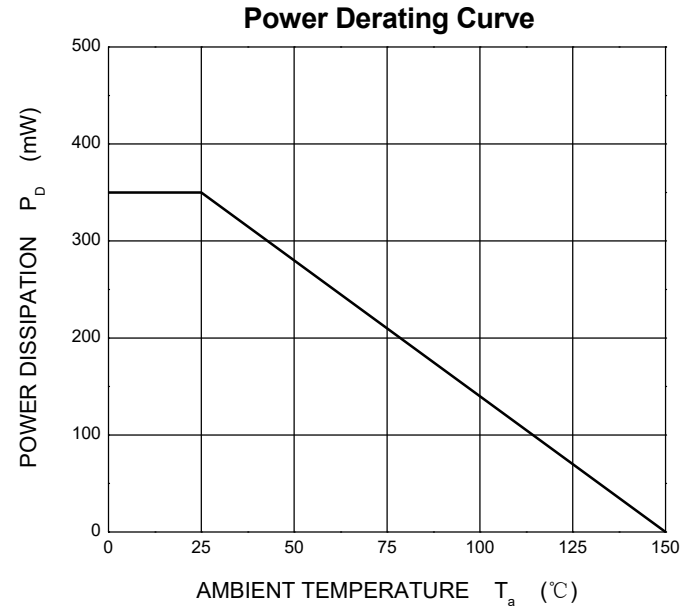
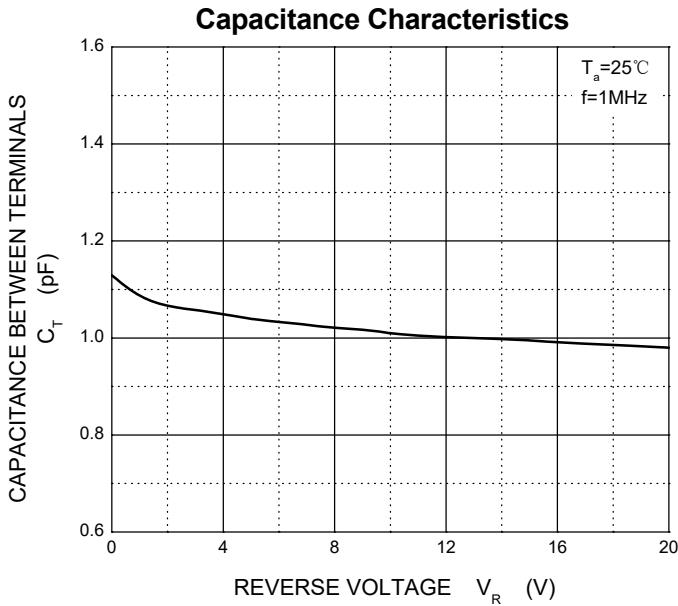
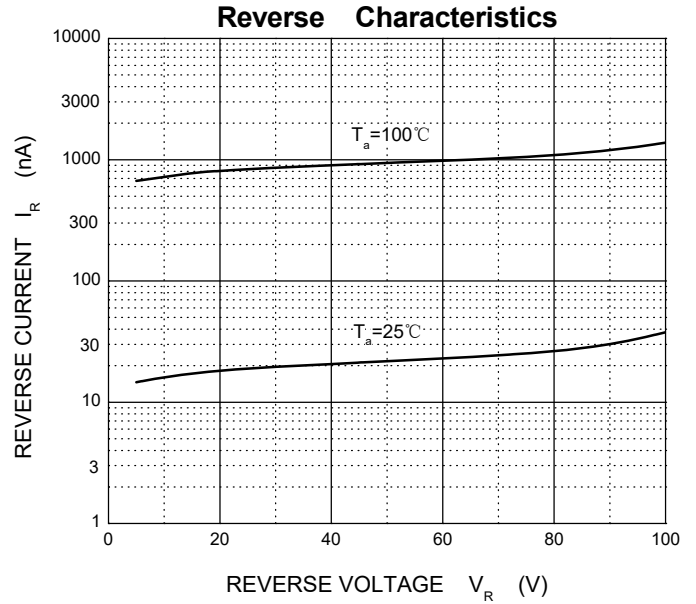
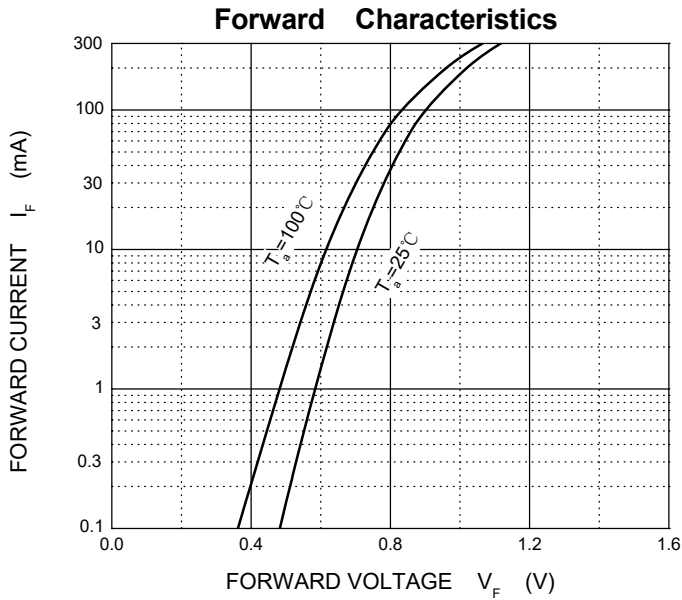
Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Peak Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	100	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	71	V
Forward Continuous Current	I <sub>FM</sub>	300	mA
Average Rectified Output Current	I <sub>O</sub>	150	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I <sub>FSM</sub>	2.0	A
Power Dissipation	P <sub>d</sub>	350	mW
		400	
Thermal Resistance from Junction to Ambient(Note 1)	R <sub>θJA</sub>	357.1	°C/W
		312.5	
Operation Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55~+150	°C

Note 1: Device mounted on 1"x1" FR4 PCB, 1oz single-side copper.

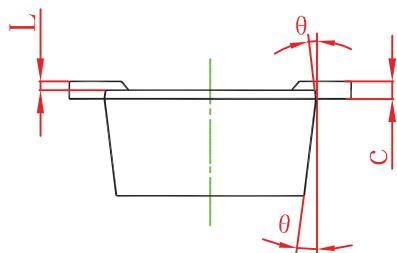
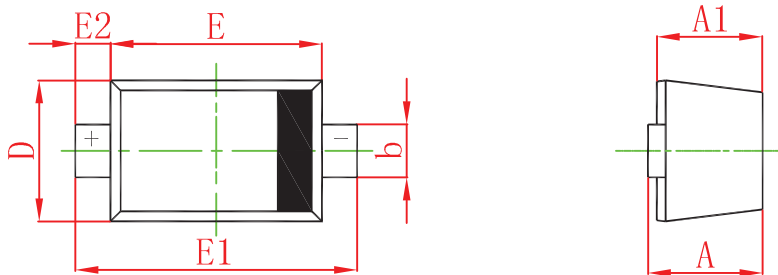
### Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Typ	Max	Unit	Conditions
Forward voltage	V <sub>F1</sub>		0.715	V	I <sub>F</sub> =1mA
	V <sub>F2</sub>		0.855	V	I <sub>F</sub> =10mA
	V <sub>F3</sub>		1.0	V	I <sub>F</sub> =50mA
	V <sub>F4</sub>		1.25	V	I <sub>F</sub> =150mA
Reverse current	I <sub>R1</sub>		1	μA	V <sub>R</sub> =75V
	I <sub>R2</sub>		25	nA	V <sub>R</sub> =20V
Capacitance between terminals	C <sub>T</sub>		2	pF	V <sub>R</sub> =0V, f=1MHz
Reverse recovery time	t <sub>rr</sub>		4	ns	I <sub>F</sub> =I <sub>R</sub> =10mA I <sub>rr</sub> =0.1X I <sub>R</sub> , R <sub>L</sub> =100Ω

**Typical Performance Characteristics (TA=25°C unless otherwise Specified)**

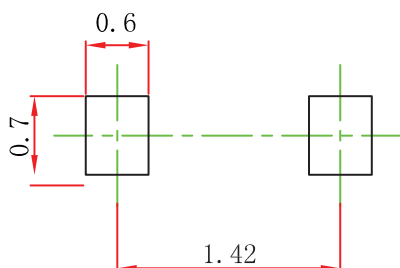


## SOD-523 Package Outline Drawing



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

## SOD-523 Suggested Pad Layout



### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.

## Contact Information

Changzhou D-first Electronics CO.,Ltd.

www.first-electronic.com

Email: xhf@first-electronic.cn

Phone: +86 (0519) 8817 1671