



# Product data sheet

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#### FEATURES

- Small Package
- Low Reverse Current
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion

#### MARKING:T4



SOD-523

#### MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted )

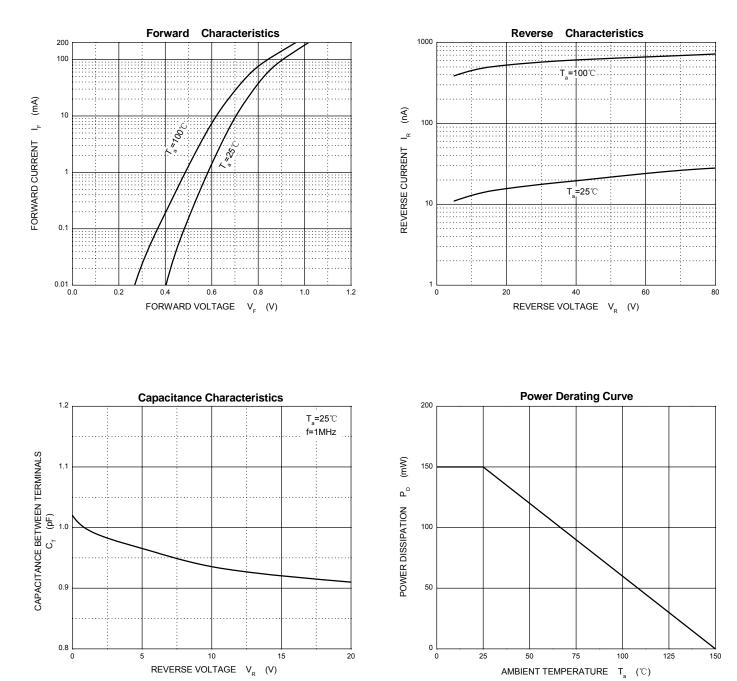
Symbol	Parameter	Value	Unit	
V <sub>RM</sub>	Non-Repetitive Peak Reverse Voltage	100	V	
V <sub>R</sub>	Reverse Voltage			
V <sub>RRM</sub>	Peak Repetitive Reverse Voltage	75	V	
V <sub>RWM</sub>	Working Peak Reverse Voltage			
V <sub>R(RMS)</sub>	RMS Reverse Voltage	53	V	
lo	Average Rectified Output Current	150	mA	
I <sub>FM</sub>	Forward Continuous Current	300	mA	
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current@t=8.3ms	2	A	
PD	Power Dissipation	150	mW	
R <sub>0JA</sub>	Thermal Resistance from Junction to Ambient	833	°C/W	
Tj	Junction Temperature	150	°C	
T <sub>stg</sub>	T <sub>stg</sub> Storage Temperature		°C	

#### **ELECTRICAL CHARACTERISTICS(T₂=25℃ unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Тур	Max	Unit
Reverse voltage	V <sub>(BR)</sub>	I <sub>R</sub> =1µA	75			V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =75V			1	μA
Reverse current		V <sub>R</sub> =20V			25	nA
	V <sub>F</sub>	I <sub>F</sub> =1mA			0.715	V
		I <sub>F</sub> =10mA			0.855	V
Forward voltage		I <sub>F</sub> =50mA			1	V
		I <sub>F</sub> =150mA			1.25	V
Total capacitance	C <sub>tot</sub>	V <sub>R</sub> =0V,f=1MHz			2	pF
Reverse recovery time $t_{rr}$ $I_F = I_R = 10 \text{mA}, I_{rr} = 0.1^* I_R, R_L = 100 \Omega$				4	ns	

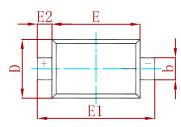


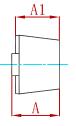


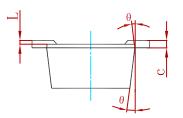




### PACKAGE MECHANICAL DATA

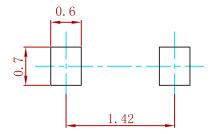






Symbol	Dimensions In Millimeters		Dimensions In Inches		
Symbol	Min	Max	Min	Max	
A	0.510	0.770	0.020	0.031	
A1	0.500	0.700	0.020	0.028	
b	0.250	0.350	0.010	0.014	
С	0.080	0.150	0.003	0.006	
D	0.750	0.850	0.030	0.033	
E	1.100	1.300	0.043	0.051	
E1	1.500	1.700	0.059	0.067	
E2	0.200 REF		0.008 REF		
L	0.010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

## Suggested Pad Layout



Note: 1.Controlling dimension:in millimeters. 2.General tolerance:± 0.05mm.

3. The pad layout is for reference purposes only.

#### **REEL SPECIFICATION**

P/N	PKG	QTY
1N4148WT	SOD-523	3000



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