

## SOD-323 Plastic-Encapsulate Diodes

**1N4148WS** FAST SWITCHING DIODES**FEATURES**

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

**MARKING: T4****Maximum Ratings and Electrical Characteristics, Single Diode @T<sub>A</sub>=25°C**

Parameter	Symbol	Limits		Unit
Non-Repetitive Peak reverse voltage	V <sub>RM</sub>	100		V
Peak Repetitive Peak reverse voltage	V <sub>RRM</sub>			
Working Peak Reverse Voltage	V <sub>RWM</sub>	75		V
DC Blocking Voltage	V <sub>R</sub>			
RMS Reverse Voltage	V <sub>R(RMS)</sub>	53		V
Forward Continuous Current	I <sub>FM</sub>	300		mA
Average Rectified Output Current	I <sub>O</sub>	150		mA
Peak forward surge current @=1.0μs @=1.0s	I <sub>FSM</sub>	2.0 1.0		A
Power Dissipation	P <sub>d</sub>	200		mW
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	625		°C/W
Junction temperature	T <sub>j</sub>	125		°C
Storage temperature	T <sub>STG</sub>	-65~+150		°C

**Electrical Ratings @T<sub>A</sub>=25°C**

Parameter	Symbol	Min.	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> =0.1XI <sub>R</sub> ,R <sub>L</sub> =100Ω

## Typical Characteristics

1N4148WS

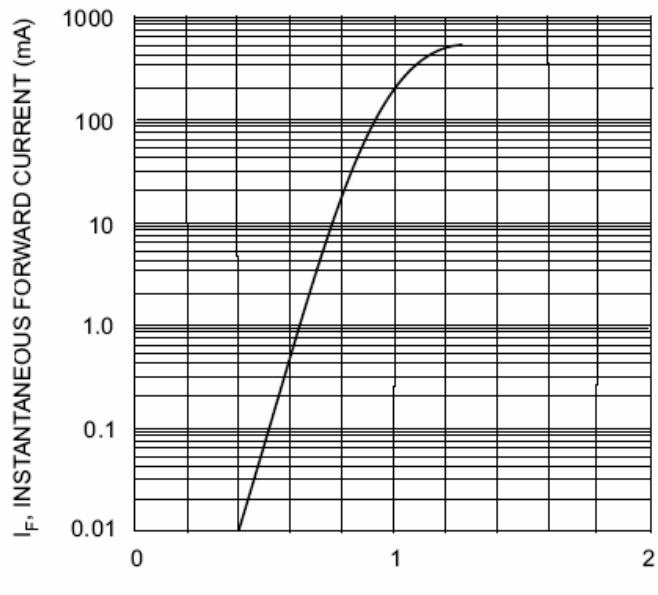


Fig. 1 Forward Characteristics

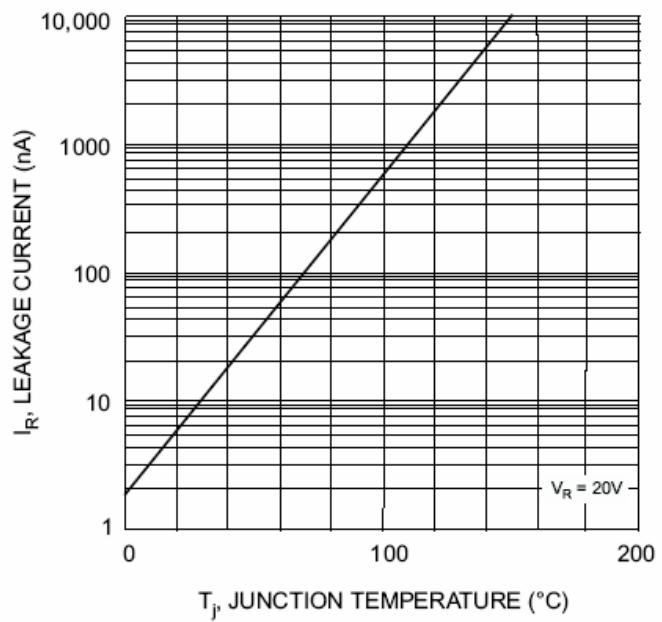


Fig. 2 Leakage Current vs Junction Temperature