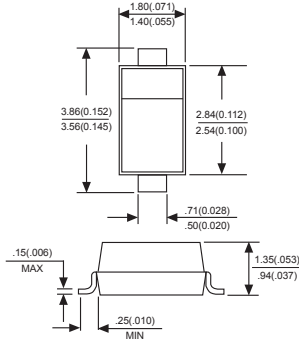




# 1N4148W

## FAST SWITCHING DIODES

### SOD-123



### FEATURES

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- For general purpose switching applications
- High conductance

### MECHANICAL DATA

**Case:** Molded plastic body  
**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026  
**Polarity:** Polarity symbols marked on case  
**Marking:** T4

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum ratings and electrical characteristics, Single diode @T<sub>A</sub>=25°C

PARAMETER	SYMBOLS	Limits	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	100	V
Maximum RMS voltage	V <sub>RMS</sub>	75	
Reverse Breakdown voltage at I <sub>R</sub> =1μA	V <sub>(BR)R</sub>	75	
Forward continuous current	I <sub>FM</sub>	300	mA
Average rectified output current	I <sub>o</sub>	150	mA
Peak forward current @τ=1.0ms	I <sub>FSM</sub>	2.0	A
Power dissipation	P <sub>d</sub>	400	mW
Thermal resistance junction to ambient	R <sub>θJA</sub>	250	°C/W
Junction temperature	T <sub>j</sub>	125	°C
Storage temperature	T <sub>STG</sub>	-65 to +150	°C

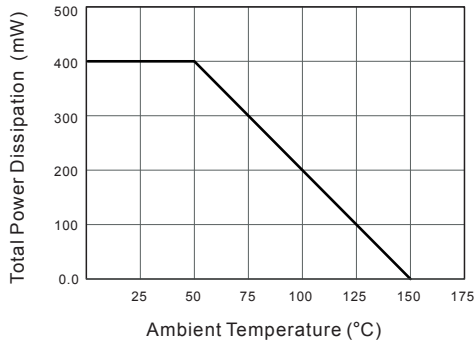
Electrical ratings @T<sub>A</sub>=25°C

PARAMETER	SYMBOLS	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V <sub>F1</sub>			0.715	V	I <sub>F</sub> =1.0mA
	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>			0.025	uA	at V <sub>R</sub> =20V T <sub>j</sub> =25°C
	I <sub>R2</sub>			1	uA	at V <sub>R</sub> =75V T <sub>j</sub> =25°C
	I <sub>R3</sub>			30	uA	at V <sub>R</sub> =25V T <sub>j</sub> =150°C
	I <sub>R4</sub>			50	uA	at V <sub>R</sub> =75V T <sub>j</sub> =150°C
Capacitance between terminals	C <sub>T</sub>			5	pF	V <sub>R</sub> =0V, f=1.0MHz
Reverse recovery time	t <sub>rr</sub>			8	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

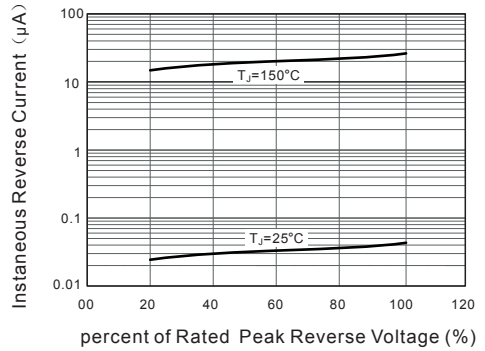


## RATINGS AND CHARACTERISTIC CURVES 1N4148W

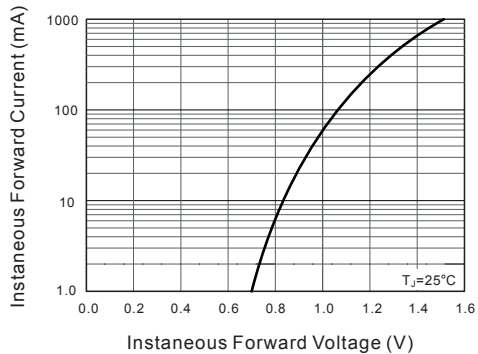
**Fig.1 Forward Current Derating Curve**



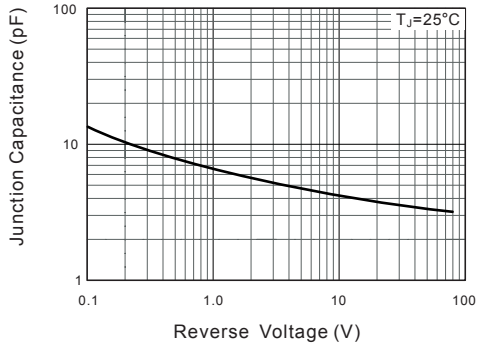
**Fig.2 Typical Reverse Characteristics**



**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



The cruve graph is for reference only.