

**SMALL SIGNAL DIODE**

**VOLTAGE RANGE 75 Volts CURRENT 250 mAmpere**

**FEATURES**

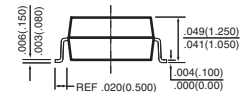
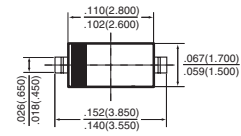
- \* Fast Switching Speed
- \* Surface Mount Package Ideally Suited for Automatic Insertion
- \* For General Purpose Switching Applications
- \* High Conductance

**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: UL 94V-O rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.01 gram



**SOD-123**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

**MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)**

RATINGS	SYMBOL	1N4448W	UNITS
Non-Repetitive Peak Reverse Voltage	VRM	100	Volts
Maximum Repetitive Peak Reverse Voltage	VPRM	75	Volts
Maximum Working Peak reverse Voltage	VRWM		
Maximum DC Blocking Voltage	VR		
Maximum RMS Voltage	VRMS	53	Volts
Maximum Forward Continuous Current	IFM	500	mAmps
Maximum Average Forward Rectified Current	IO	250	mAmps
Non-Repetitive Peak Forward Surge Current	IFSM	@t=1.0uS	4.0
		@t=1.0S	2.0
Typical Reverse Recovery Time (Note 1)	Trr	4	nS
Typical Junction Capacitance (Note 2)	CJ	4	pF
Maximum Power Dissipation (Note 3)	PD	400	mW
Typical Thermal Resistance	RθJA	315	°C/W
Operating and Storage Temperature Range	TJ, TSTG	-65 to + 150	°C

**ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)**

CHARACTERISTICS	SYMBOL	1N4448W	UNITS
Maximum Instantaneous Forward Voltage	VF	@IF=1.0mA	0.715
		@IF=10mA	0.855
		@IF=50mA	1.0
		@IF=150mA	25
Maximum Instantaneous Reverse Current	IR	@VR=20V	25
		@VR=75V	2.5

NOTES : 1. Measured at IF=IR=10mA, IRR=0.1IR And RL=100.  
 2. Measured at 1MHz and applied reverse voltage of 0 volts.  
 3. Part mounted on FR-4 PC board with minimum recommended pad layout.

## RATING AND CHARACTERISTICS CURVES ( 1N4448W )

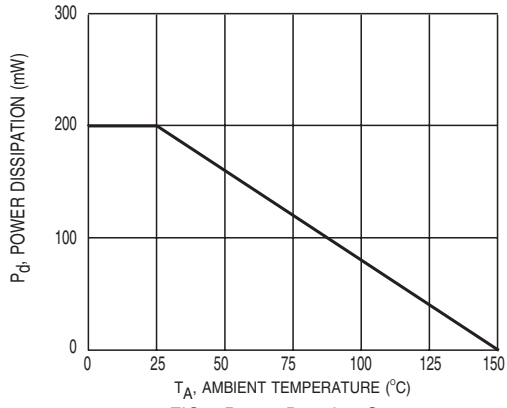


FIG.1 Power Derating Curve

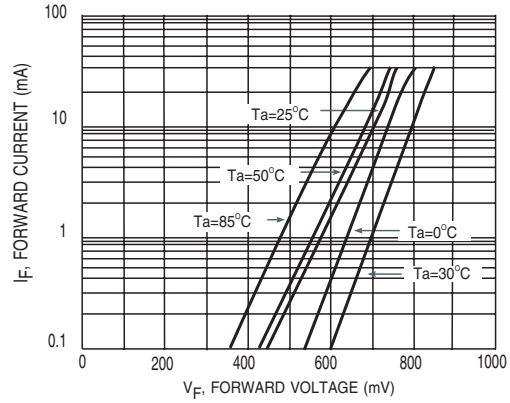


FIG.2 Typical Forward Characteristics

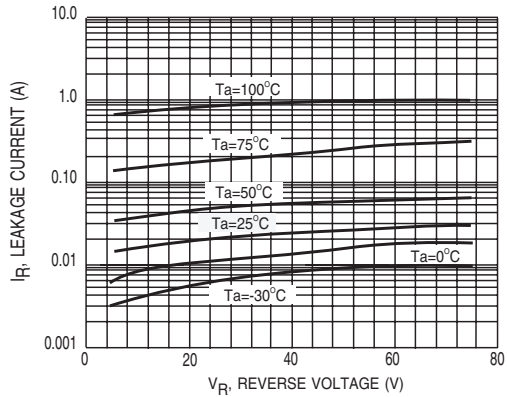


FIG.3 Typical Reverse Characteristics

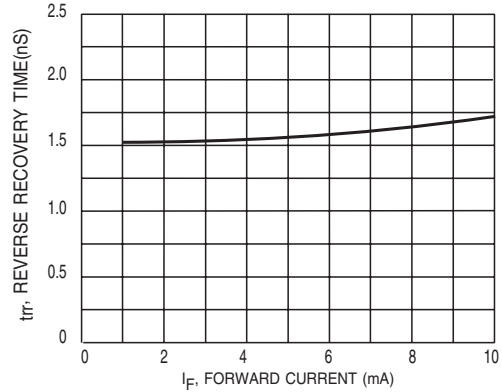


FIG.4 Reverse Recovery Time vs. Forward Current

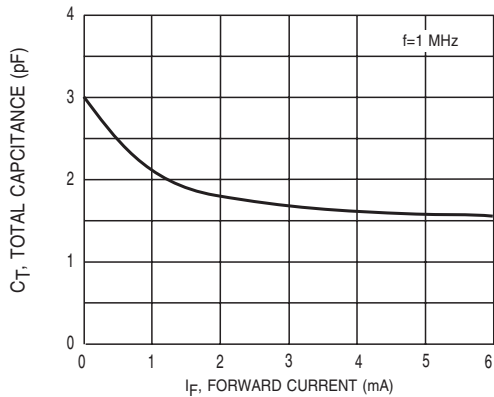


FIG.5 Total Capacitance vs. Reverse Voltage