

SMALL SIGNAL DIODE

VOLTAGE RANGE 75 Volts CURRENT 250 mAmpere

FEATURES

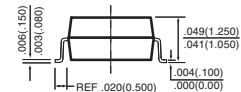
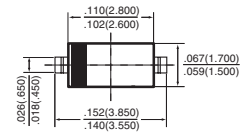
- * Fast Switching Speed
- * Surface Mount Package Ideally Suited for Automatic Insertion
- * For General Purpose Switching Applications
- * High Conductance

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)

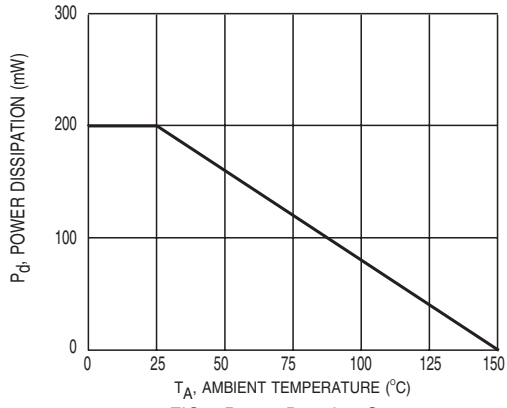


FIG.1 Power Derating Curve

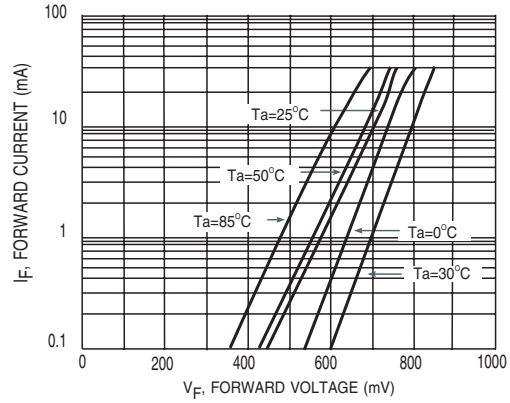


FIG.2 Typical Forward Characteristics

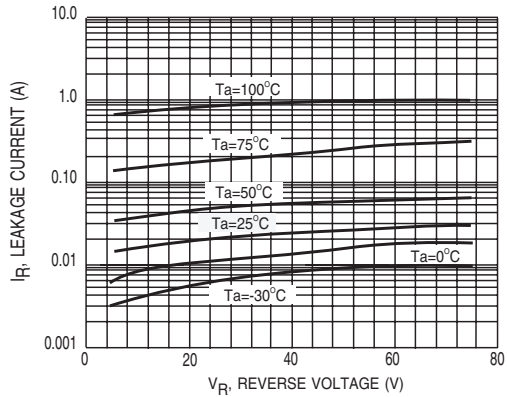


FIG.3 Typical Reverse Characteristics

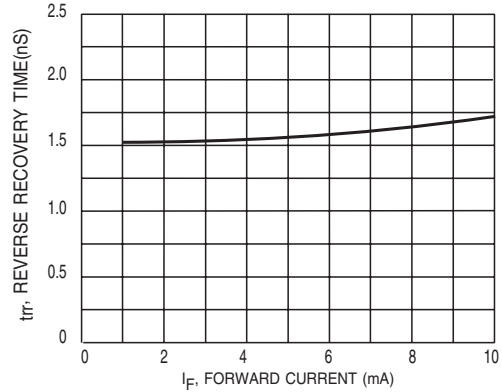


FIG.4 Reverse Recovery Time vs. Forward Current

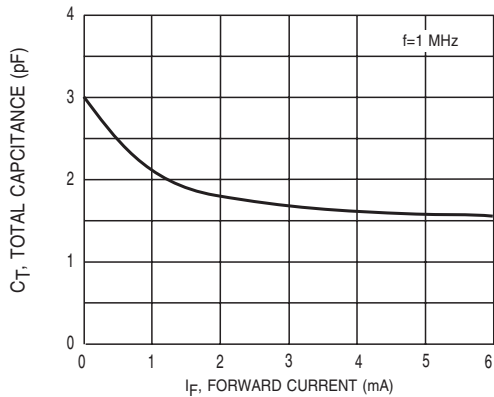


FIG.5 Total Capacitance vs. Reverse Voltage