

SMALL SIGNAL DIODE

VOLTAGE RANGE 75Volts CURRENT 250mAmpere

FEATURES

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

MECHANICAL DATA

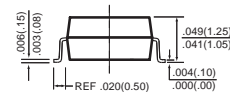
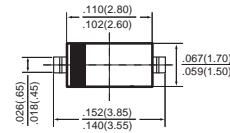
- * Case: Molded plastic
- * Epoxy: UL 94V-O rate flame retardant
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.01 gram

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%.



SOD-123



Dimensions in inches and (millimeters)

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

| RATINGS | SYMBOL | 1N4448W | UNITS |
|---|-----------------------------------|--------------|-------|
| Non-Repetitive Peak Reverse Voltage | V _{RM} | 100 | Volts |
| Maximum Repetitive Peak Reverse Voltage | V _{RRM} | 75 | Volts |
| Maximum Working Peak reverse Voltage | V _{RWM} | | |
| Maximum DC Blocking Voltage | V _R | | |
| Maximum RMS Voltage | V _{RMS} | 53 | Volts |
| Maximum Forward Continuous Current | I _{FM} | 500 | mAmps |
| Maximum Average Forward Rectified Current | I _O | 250 | mAmps |
| Non-Repetitive Peak Forward Surge Current | I _{FSM} | @t=1.0uS | 4.0 |
| | | @t=1.0S | 2.0 |
| Typical Reverse Recovery Time | T _{rr} | 4 | nS |
| Typical Junction Capacitance | C _T | 4 | pF |
| Maximum Power Dissipation | P _D | 400 | mW |
| Typical Thermal Resistance | R _{θJA} | 315 | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to + 150 | °C |

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

| CHARACTERISTICS | SYMBOL | 1N4448W | UNITS |
|---------------------------------------|----------------|-------------------------|-------|
| Maximum Instantaneous Forward Voltage | V _F | @ I _F =1.0mA | 0.715 |
| | | @ I _F =10mA | 0.855 |
| | | @ I _F =50mA | 1.0 |
| | | @ I _F =150mA | 1.25 |
| Maximum Instantaneous Reverse Current | I _r | @ V _R =20V | 25 |
| | | @ V _R =75V | 2.5 |

RATING AND CHARACTERISTICS CURVES (1N4448W)

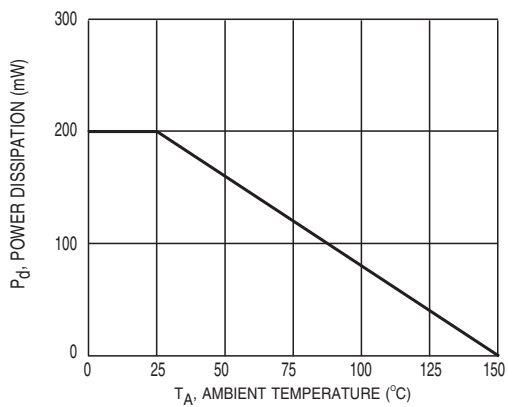


FIG.1 Power Derating Curve

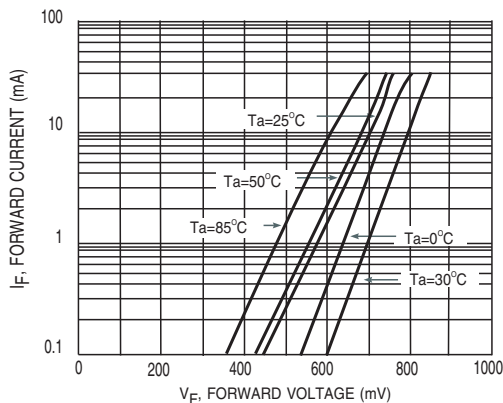


FIG.2 Typical Forward Characteristics

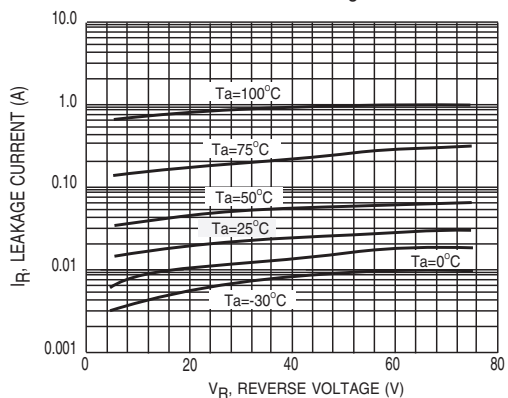


FIG.3 Typical Reverse Characteristics

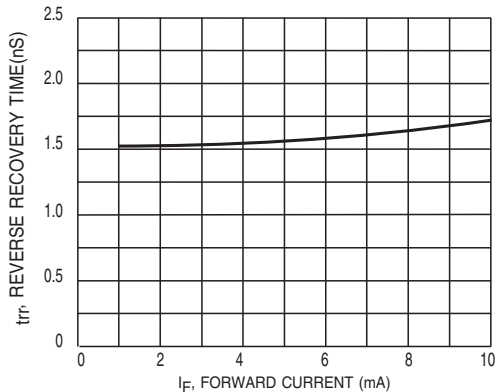


FIG.4 Reverse Recovery Time vs. Forward Current

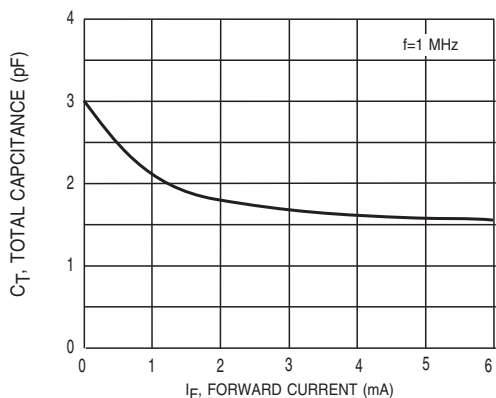


FIG.5 Total Capacitance vs. Reverse Voltage

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