RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

1N4448W

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 Applicationgs
* 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

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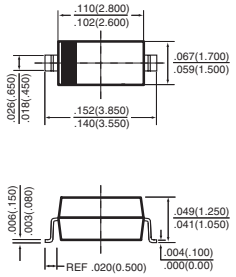

Dimensions in inches and (millimeters)

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 (@ T_A=25 °C unless otherwise noted)

RATINGS		SYMBOL	1N4448W	UNITS
Non-Repetitive Peak Reverse Voltage		V_{RM}	100	Volts
Maximum Repetitive Peak Reverse Voltage Maximum Working Peak reverse Voltage Maximum DC Blocking Voltage		V_{RRM} V_{RWM} V_R	75	Volts
Maximum RMS Voltage		V_{RMS}	53	Volts
Maximum Forward Comtinuous Current		I_{FM}	500	mAmps
Maximum Average Forward Rectified Current		I_O	250	mAmps
Non-Repetitive Peak Forward Surge Current	@t=1.0uS @t=1.0S	I_{FSM}	4.0 2.0	Amps
Typical Reverse Recovery Time (Note 1)		Trr	4	nS
Typical Junction Capacitance (Note 2)		C_J	4	pF
Maximum Power Dissipation (Note 3)		P_D	400	mW
Typical Thermal Resistance		$R_{\Theta JA}$	315	°C/W
Operating and Storage Temperature Range		T_J, T_{STG}	-65 to + 150	°C

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

CHARACTERISTICS		SYMBOL	1N4448W	UNITS
Maximum Instantaneous Forward Voltage	@IF=1.0mA @IF=10mA @IF=50mA @IF=150mA	V_F	0.715 0.855 1.0 25	Volts
Maximum Instantaneous Reverse Current	@VR=20V @VR=75V	I_R	25 2.5	nAmps uAmps

NOTES : 1. Measured at I_F=I_R=10mA, I_{RR}=0.1I_R And R_L=100.
2. Measured at 1MHz and applied reverse voltage of 0 volts.
3. Part mounted on FR-4 PC board with minimunm recommended pad layout.

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RATING AND CHARACTERISTICS CURVES (1N4448W)

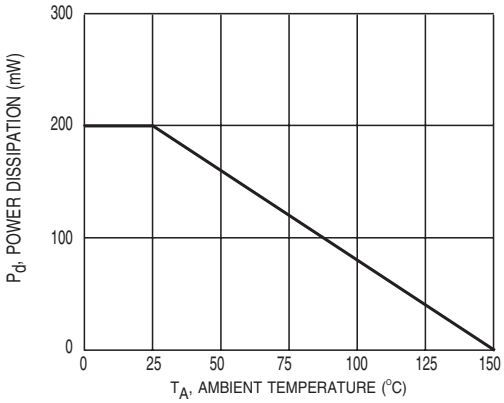

FIG.1 Power Derating Curve

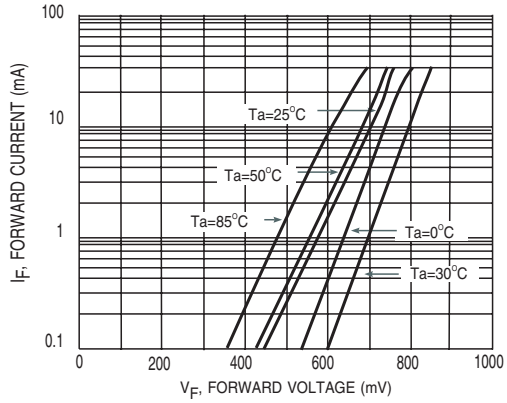

FIG.2 Typical Forward Chatacteristics

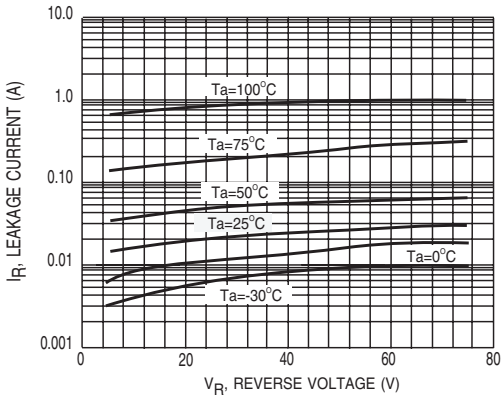

FIG.3 Typical Reverse Characteristics

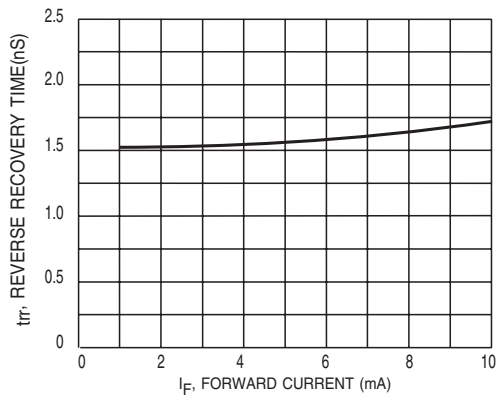

FIG.4 Reverse Recovery Time vs. Forward Current

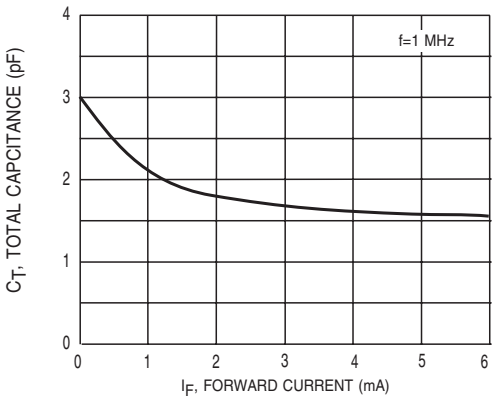

FIG.5 Total Capacicance vs. Reverse Voltage