HITANO ENTERPRISE CORP..

1N4148W THRU 1N4448W

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SWITCHING DIODE

VOLTAGE RANGE -50 to 100 Volts CURRENT - 0.15 to 0.2 Ampere

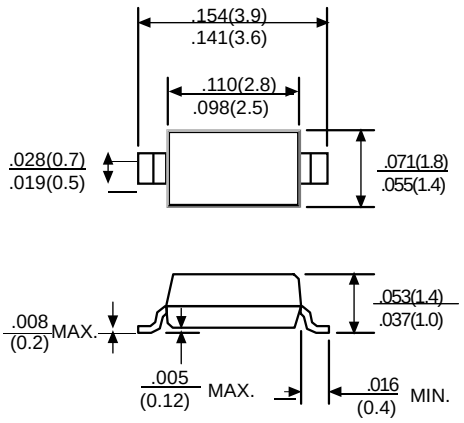
FEATURES

* Low power loss, high efficiency
* Low leakage
* Low forward voltage drop
* High speed switching
* High current capability
* High reliability

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Terminals: Solder plated, solderable per MIL-STD-202E, Method 208 guaranteed
* Mounting position: Any
* Weight: 0.008 grams Approx.

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%.

	SYMBOL	1N4148W	1N4150W	1N4151W	1N4448W	UNITS
Maximum DC Blocking Voltage	V_{DC}	75	50	50	75	V
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	50	75	100	V
Maximum Average Rectified Current	Io	150	200	150	150	mA
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	2.0	0.5		4.0	A
Maximum Power Dissipation Tamb=25°C	Ptot	410				mW
Maximum Forward Voltage	V_F	1.0 / 50mA	1.0 / 200mA	1.0 / 10mA	0.72 / 5mA 1.0 / 100mA	V
Maximum Reverse Current at Rated DC Blocking Voltage @ T_A=25°C	I_R	2.5	0.1	0.05	2.5	μA
Maximum Reverse Recovery Time(Note 1)	trr	4.0		2.0	4.0	ns
Typical Junction Capacitance(Note 2)	C_J	4.0		2.0	4.0	pF
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to + 125				°C

Note: 1. Test conditions: I_F=I_R=10mA, R_L=100Ω, measured at I_R=1mA
2. Measured at 1MHz and V_R=0

RATING AND CHARACTERISTIC CURVES (1N4148W THRU 1N4448W)

FIG.1 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

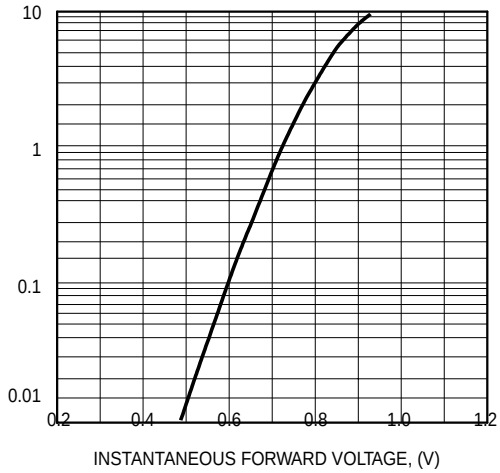


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

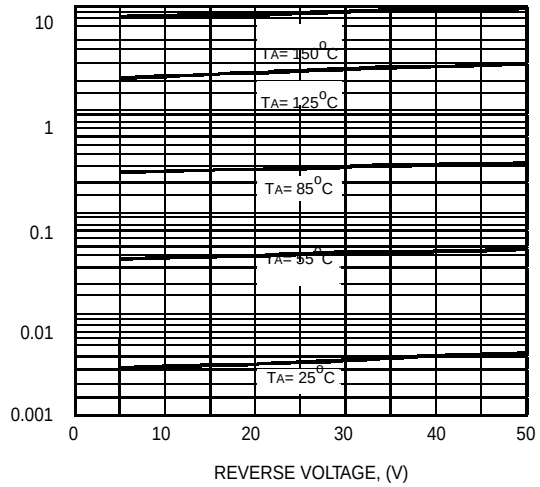


FIG.3 - TYPICAL JUNCTION CAPACITANCE

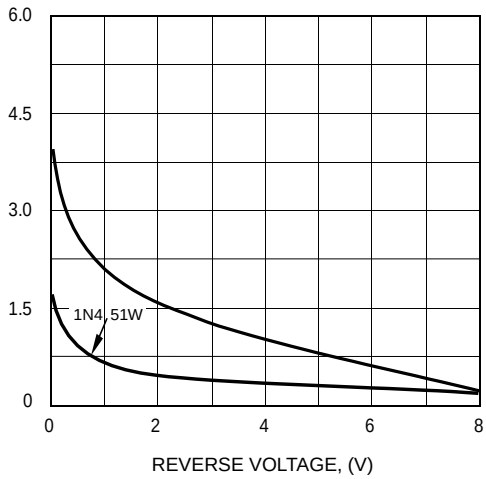


FIG.4 - RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT