

**SMALL SIGNAL DIODE**
**VOLTAGE RANGE 75 Volts CURRENT 150mAmpere**
**FEATURES**

- \* Compact surface mount with same foot print as mini-melf
- \* High Breakdown Voltage
- \* Fast Switching Speed
- \* 400mW Power Dissipation
- \* General Purpose Switching Applications
- \* High Conductance

**MECHANICAL DATA**

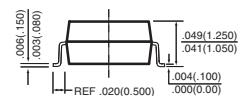
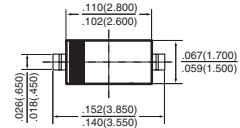
- \* Case: Molded plastic
- \* Epoxy: UL 94V-O rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.01 gram

**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	1N4148W	UNITS
Non-Repetitive Peak Reverse Voltage	VRM	100	Volts
Maximum Repetitive Peak Reverse Voltage	VRRM		
Maximum Working Peak reverse Voltage	VRWM	75	Volts
Maximum DC Blocking Voltage	VR		
Maximum RMS Voltage	VRMS	53	Volts
Maximum Forward Continuous Current	IFM	300	mAmps
Maximum Average Forward Rectified Current	IO	150	mAmps
Non-Repetitive Peak Forward Surge Current @t=1.0uS @t=1.0S	IFSM	2.0 1.0	Amps
Typical Reverse Recovery Time	Trr	4	nS
Typical Junction Capacitance	C <sub>T</sub>	2	pF
Maximum Power Dissipation	PD	400	mW
Typical Thermal Resistance	R <sub>θJA</sub>	315	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to + 150	°C

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

CHARACTERISTICS	SYMBOL	1N4148W	UNITS
Maximum Instantaneous Forward Voltage @ IF=1.0mA @ IF=10mA @ IF=50mA @ IF=150mA	V <sub>F</sub>	0.715 0.855 1.0 25	Volts
Maximum Instantaneous Reverse Current @ VR=20V @ VR=75V	I <sub>R</sub>	25 1.0	nAmps uAmps

## RATING AND CHARACTERISTICS CURVES ( 1N4148W )

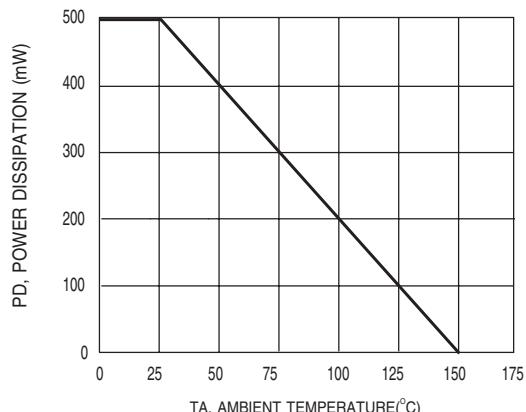


FIG.1 FORWARD DERATING CURVE

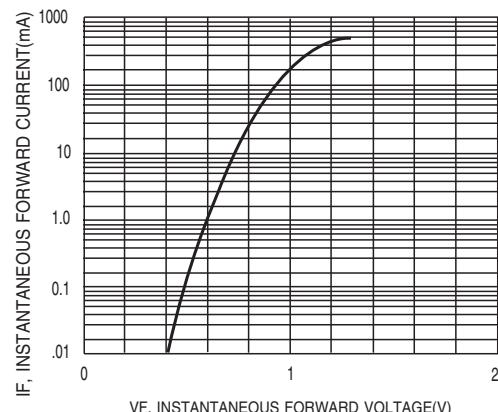


FIG.2 FORWARD CHARACTERISTICS

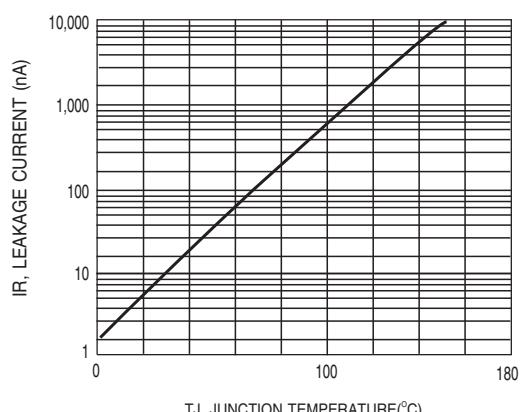


FIG.3 LEAKAGE CURRENT VS. JUNCTION TEMPERATURE