

**SMALL SIGNAL DIODE**

**VOLTAGE RANGE 75 Volts CURRENT 150 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: 0.004 grams

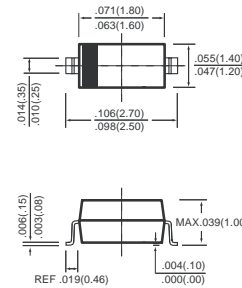
Ratings at 25

**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-323**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS (@T<sub>A</sub>=25°C unless otherwise noted)**

RATINGS	SYMBOL	1N4148WS	UNITS
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	Volts
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	75	Volts
Maximum Working Peak reverse Voltage	V <sub>VRM</sub>		
Maximum DC Blocking Voltage	V <sub>R</sub>		
Maximum RMS Voltage	V <sub>RMS</sub>	53	Volts
Maximum Forward Continuous Current	I <sub>FM</sub>	300	mAmps
Maximum Average Forward Rectified Current	I <sub>O</sub>	150	mAmps
Non-Repetitive Peak Forward Surge Current		@t=1.0uS	2.0
		@t=1.0S	1.0
Typical Reverse Recovery Time (Note 1)	T <sub>rr</sub>	4	nS
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	2	pF
Maximum Power Dissipation (Note 3)	P <sub>D</sub>	200	mW
Typical Thermal Resistance	R <sub>θJA</sub>	625	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-65 to + 150	°C

**ELECTRICAL CHARACTERISTICS (@T<sub>A</sub>=25°C unless otherwise noted)**

CHARACTERISTICS	SYMBOL	1N4148WS	UNITS
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	@ I <sub>F</sub> =1.0mA	0.715
		@ I <sub>F</sub> =10mA	0.855
		@ I <sub>F</sub> =50mA	1.0
		@ I <sub>F</sub> =150mA	1.25
Maximum Instantaneous Peverse Current	I <sub>R</sub>	@ V <sub>R</sub> =20V	25
		@ V <sub>R</sub> =75V	1

NOTES : 1. Measured at I<sub>F</sub>=I<sub>R</sub>=10mA, I<sub>RR</sub>=0.1I<sub>R</sub> And R<sub>L</sub>=100Ω.  
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 ( 1N4148WS )

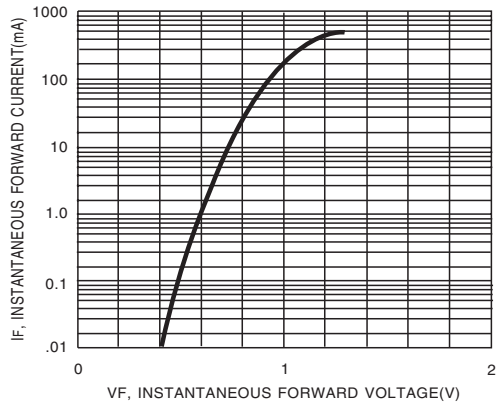


FIG.1 FORWARD CHARACTERISTICS

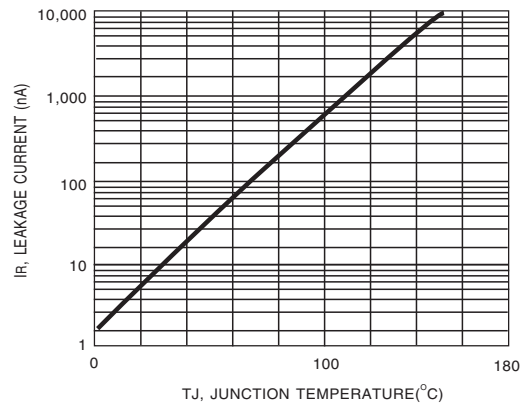


FIG.2 LEAKAGE CURRENT VS. JUNCTION TEMPERATURE