

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

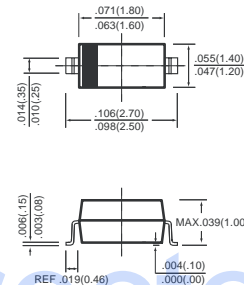
Ratings at 25°C ambient temperature unless otherwise specified.

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_A=25°C unless otherwise noted)

| RATINGS | SYMBOL | 1N4148WS | 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} | 300 | mAmps |
| Maximum Average Forward Rectified Current | I _O | 150 | mAmps |
| Non-Repetitive Peak Forward Surge Current | I _{FSM} | 2.0 | Amps |
| | | 1.0 | |
| Typical Reverse Recovery Time (Note 1) | T _{rr} | 4 | nS |
| Typical Junction Capacitance (Note 2) | C _J | 2 | pF |
| Maximum Power Dissipation (Note 3) | P _D | 200 | mW |
| Typical Thermal Resistance | R _{θJA} | 625 | °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 | 1N4148WS | UNITS |
|--|------------|--------|----------|-------|
| Maximum Instantaneous Forward Voltage | @ IF=1.0mA | VF | 0.715 | Volts |
| | @ IF=10mA | | 0.855 | |
| | @ IF=50mA | | 1.0 | |
| | @ IF=150mA | | 1.25 | |
| Maximum Instantaneous Perverse Current | @ VR=20V | IR | 25 | nAmps |
| | @ VR=75V | | 1 | uAmps |

- NOTES : 1. Measured at I_F=I_R=10mA, I_{RR}=0.1I_R And R_L=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)

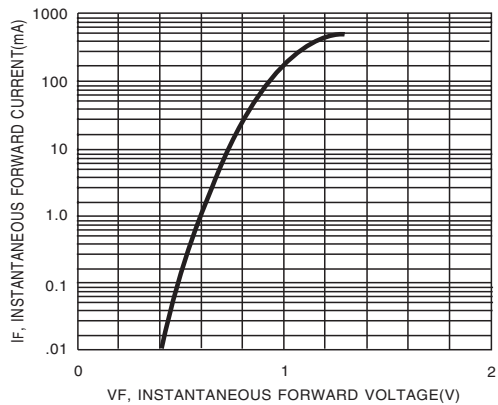


FIG.1 FORWARD CHARACTERISTICS

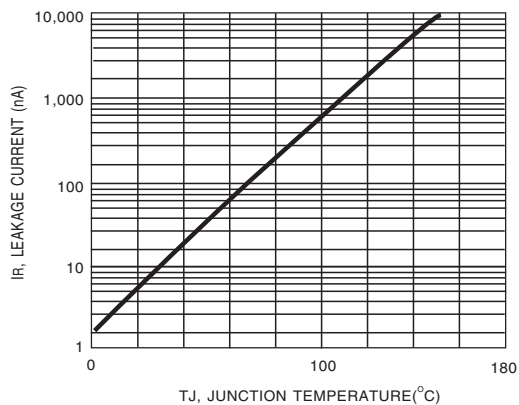


FIG.2 LEAKAGE CURRENT VS. JUNCTION TEMPERATURE