

*Excellence in Electronics*

TYPE

1N439

The 1N439 is a hermetically sealed silicon junction diode designed for use as a voltage regulator or reference when biased in the Zener region. The flexible terminal leads may be soldered or welded directly to the terminals of circuit components without the use of sockets. Standard inline sub-miniature sockets may be used by cutting the leads to a suitable length.

MECHANICAL DATA

CASE: Metal and GlassBASE: None (0.020" tinned kovar wire. Length: 1.5" minimum
Spacing: 0.080" center-to-center)TERMINAL CONNECTIONS: (Black Dot is adjacent to cathode terminal)MOUNTING POSITION: Any

ELECTRICAL DATA

RATINGS - ABSOLUTE MAXIMUM VALUES: (at 25°C)

Ambient Temperature Range

-55 to +150 °C

Dissipations at:

25°C	150 mw
65°C	110 mw
100°C	75 mw
150°C	25 mw

ZENER REGULATOR

Zener Voltage

10.0 ± 1.0 volts

Zener Voltage Temperature Stability

0.08% per °C

Average Zener Current

20.0 ma.

Peak Zener Current (1.0 sec.)

70 ma.

Zener Impedance Z at 5.0 mAdc

10.0 ohms

Zener Impedance Z at 0.5 mAdc

100.0 ohms

RECTIFIER

Peak Inverse Voltage

9.0 volts

Continuous Inverse Voltage

9.0 volts

Average Rectified Current

125 mA

Average Rectified Current (100°C)

80 mA

Peak Rectified Current

300 mA

Surge Current (for 1.0 sec.)

500 mA

CHARACTERISTICS:100°C25°C

Maximum Inverse Current at -1.0 volts

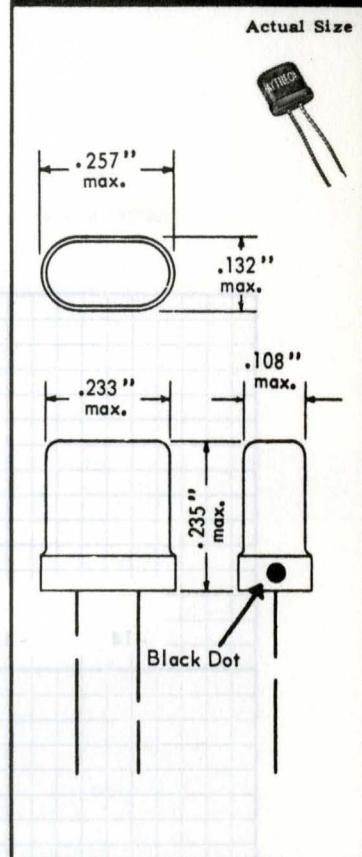
1.0

0.1 μa.

Maximum Forward Voltage at 100 ma.

1.0

1.0 volts



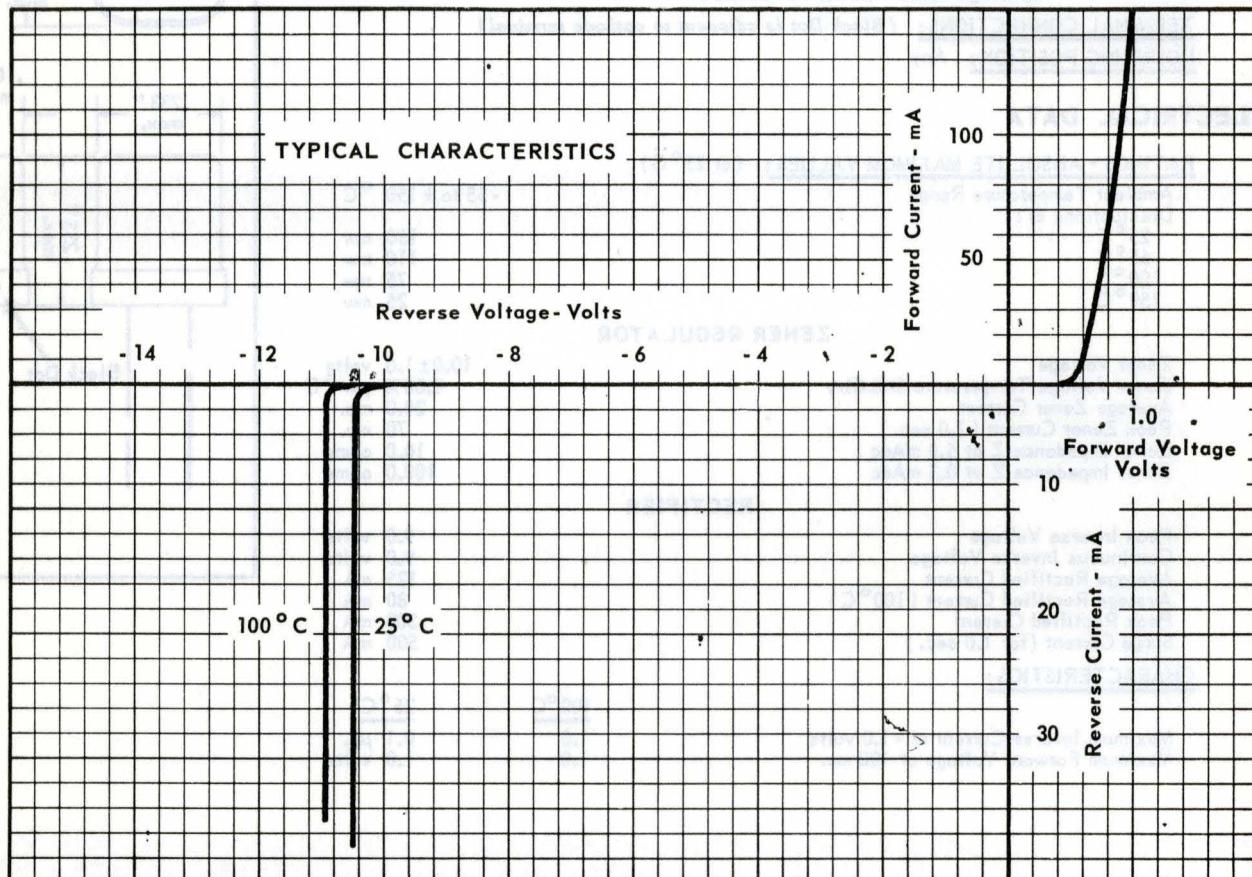
Tentative Data

RAYTHEON MANUFACTURING COMPANY

RECEIVING AND CATHODE RAY TUBE OPERATIONS

SILICON VOLTAGE REGULATOR DIODE

silicon voltage regulator diodes are now available with reverse voltage ratings up to 1500 millivolts. These diodes have a low forward voltage drop at low currents and a high current density at high reverse voltages. They are suitable for use in power supplies, voltage regulators, and other applications where a high current density is required.



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