

Observations and Calculation

Trial no	Voltmeter reading V	Ammeter reading I
1 2 3 4 5 6 7 8 9 10	reading V	reading I

ZENER DIODE

AIM

To draw V-I graph

APPARATUS

Zener diode, voltmeter, milli ammeter, rheostat, key, battery, connecting wire.

THEORY

A junction diode specially designed to work only in one reverse breakdown voltage is called zener diode. In reverse bias, the potential barrier is large. Due to that reverse current through the diode is almost zero. On increasing the reverse voltage to a certain value, current increases suddenly. This voltage is called zener voltage.

PROCEDURE

Connections are made as shown in the figure. Using rheostat the voltage across diode is made at 0.1V and corresponding current is noted. The voltage is increased as 0.2, 0.3, 0.4, 0.5..... and in each time mille ammeter reading is taken. A graph is plotted with voltage along X axis and current along –ve Y axis

RESULT

The V-I graph is plotted.