

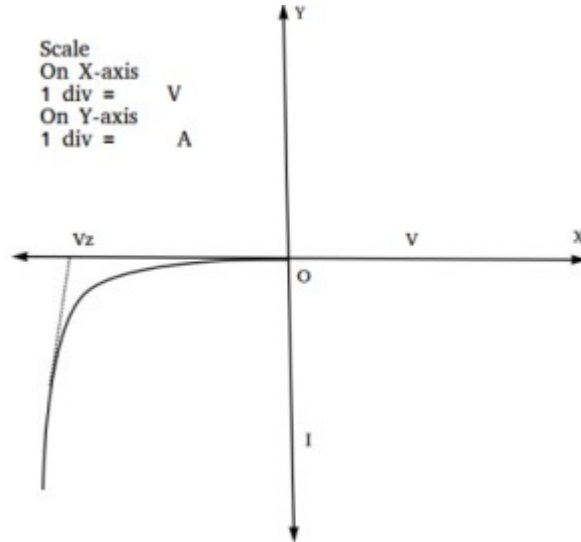
The Zener Diode

Aim: To draw the reverse characteristics curves of a Zener diode and to determine its reverse breakdown voltage

Apparatus: Zener diode, milliammeter, voltmeter, power supply, resistor(100 ohms), rheostat, Bread board, connecting wires, key etc.

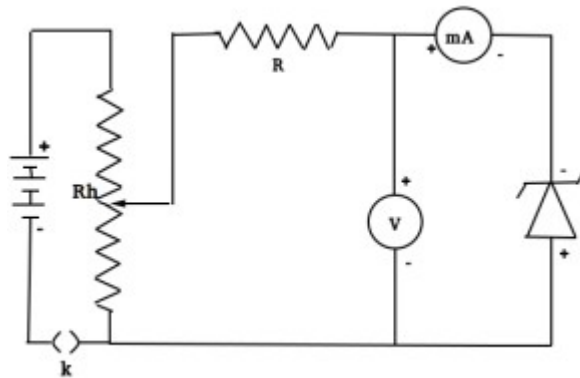
Theory:

A zener diode is specially constructed to operate in the reverse breakdown region. It has a sharp breakdown voltage. The reverse current is extremely small for small reverse voltage. After reaching a certain voltage called breakdown voltage, current increases widely even for a small increase of reverse voltage. In the graph it can be seen that the voltage remains unchanged after the breakdown of the zener.



Observations:

Least Count of the ammeter = A
 Least Count of the voltmeter = V
 Zener diode used :



Sl No																			
Voltmeter Reading (V)																			
Ammeter Reading (A)																			

Results:

- Reverse characteristics of the zener diode is drawn
- Breakdown voltage of the zener diode = Volts