

Chapter-5

(Understand the Different types of special diodes)

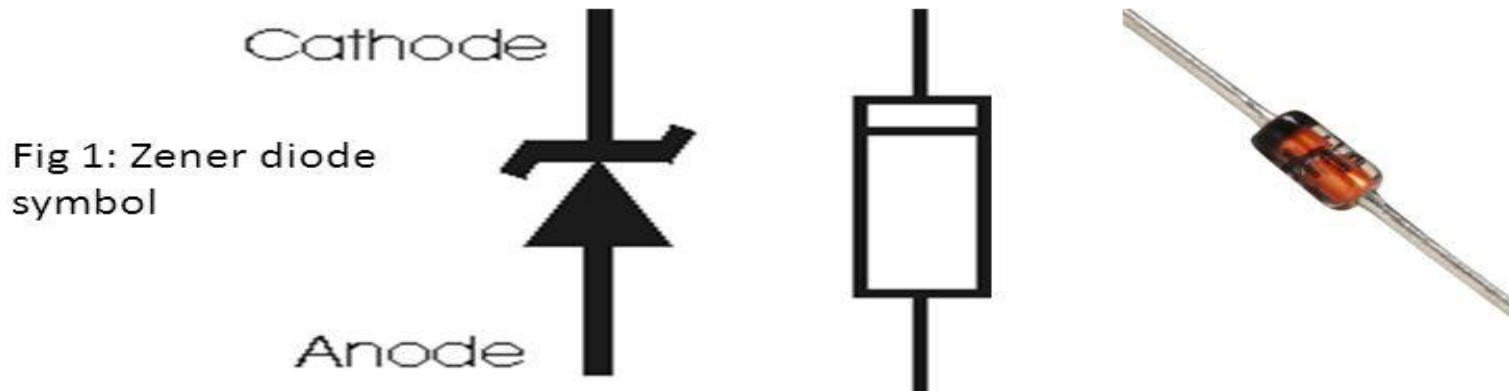
Lecture-2

Presented by

Hasan Murad Munna

ZENER DIODE / BREAKDOWN DIODE

- Zener diode permits the current to flow in forward direction as well as in reverse direction when the voltage exceeds breakdown voltage i.e. zener voltage (V_Z)
- Operates in breakdown region in reverse bias condition.
- Zener diode may use avalanche breakdown or zener breakdown mechanism,



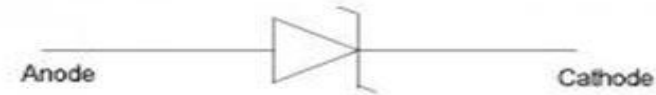


Zener Diode Voltage Regulator

A zener diode is also called a voltage-reference, voltage regulator or breakdown diode.

The zener diode is a silicon PN junction device, which differs from a semiconductor diode, in the sense, that it is operated in the reverse breakdown region.

Also, the breakdown voltage of a zener diode is set by carefully controlling the doping level during manufacturing process.



Zener diode symbol