

Ch. 1

Power diode :- These diodes are used at high power means at high voltage and high current. Its current carrying capacity is upto 800 A and its voltage rating upto 2500 V.

Types of Power diode :-

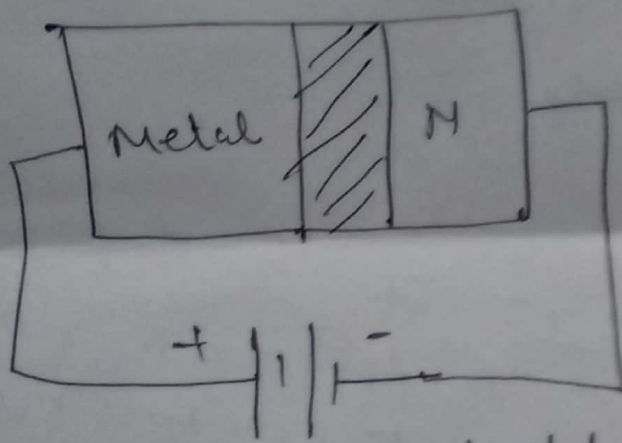
The power diode can be divided into three categories:-

- 1) General purpose diode
- 2) Fast recovery diode
- 3) Schottky diode.

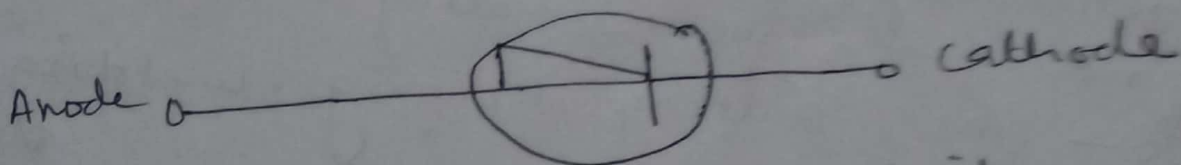
① General purpose diode :- The current carrying capacity of this diode is 1 A to 1000 A and its voltage rating is about 50 V to 5 kV. It is generally used where low switching speed and high power rating is required such as :- UPS, Battery charging, welding etc.

② Fast Recovery diode :- It is used in switching devices which work at high frequency such as chopper, commutation ckt, SMPS, induction heating etc.

3. Schottky diode:- In this diode there is a metal (Gold, silver, platinum etc) at one side and N type semiconductor at other side. Its switching speed is about 300 MHz because its reverse recovery time is in (nsec). It is used only in high frequency and low power rectifiers.



a) Ckt diagram of Schottky diode



b) symbol of Schottky diode.

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