

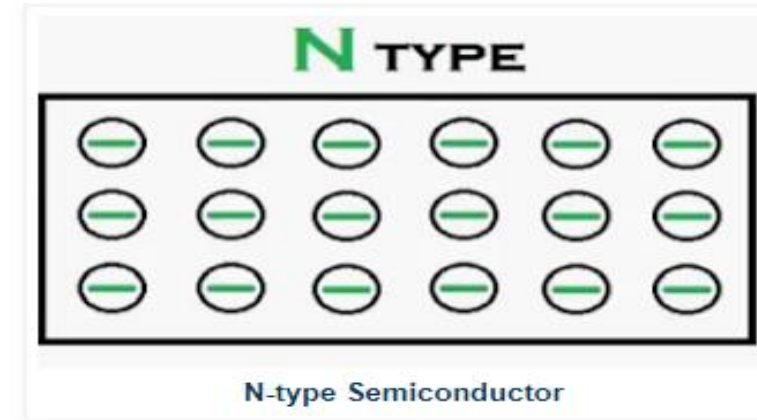
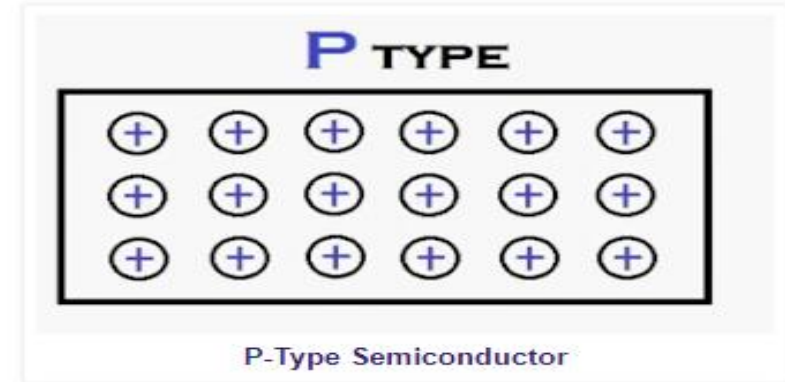
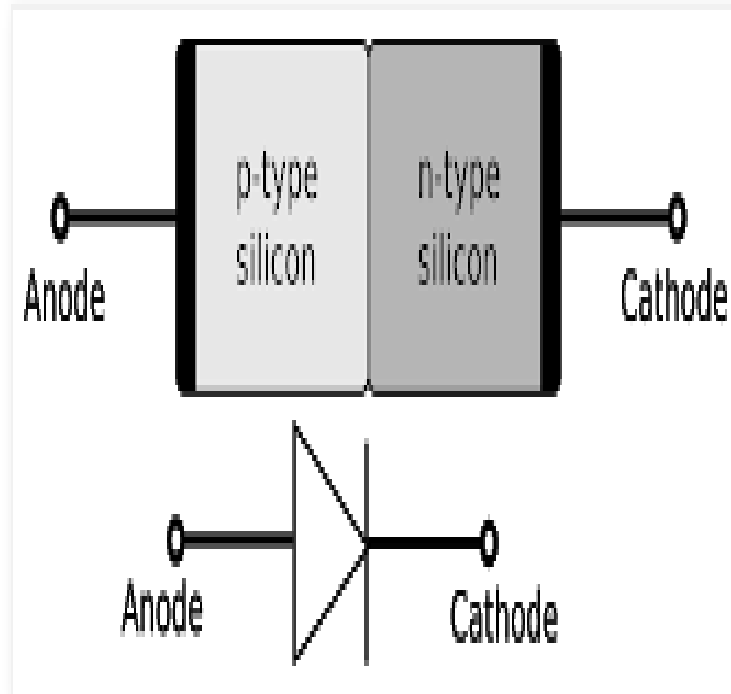


Electronics Devices (19EC31)

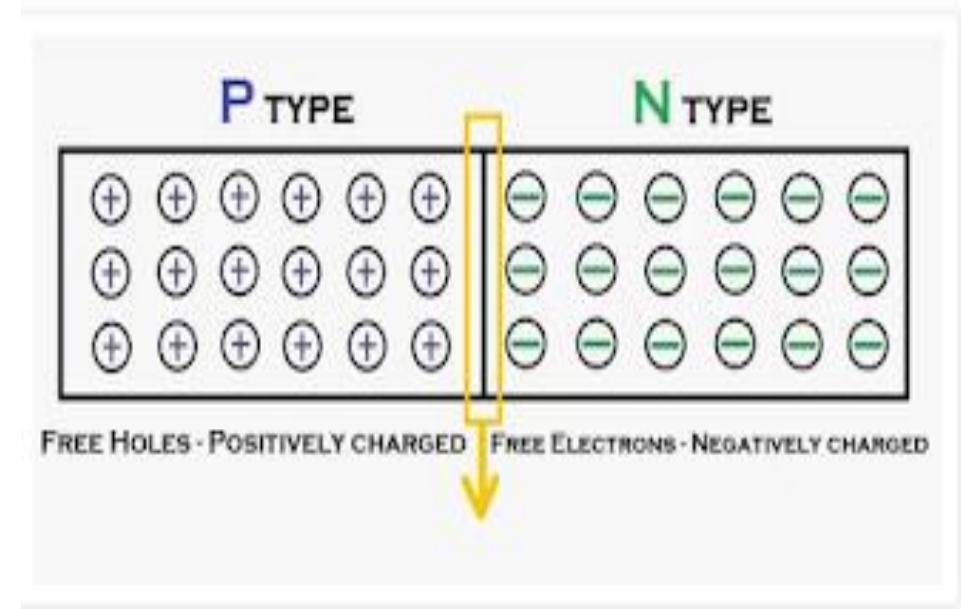
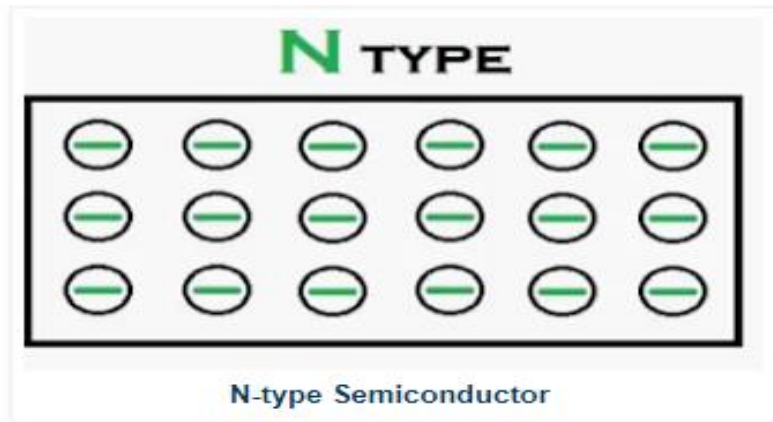
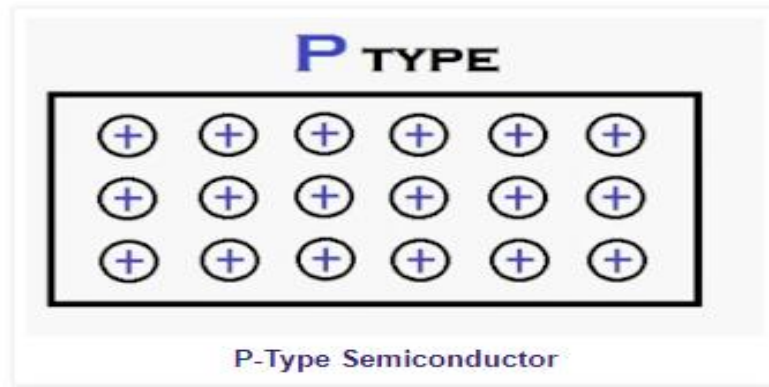
Class 8

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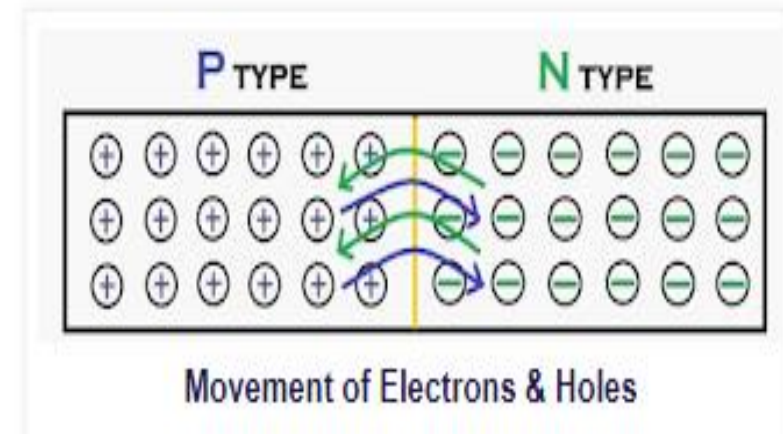
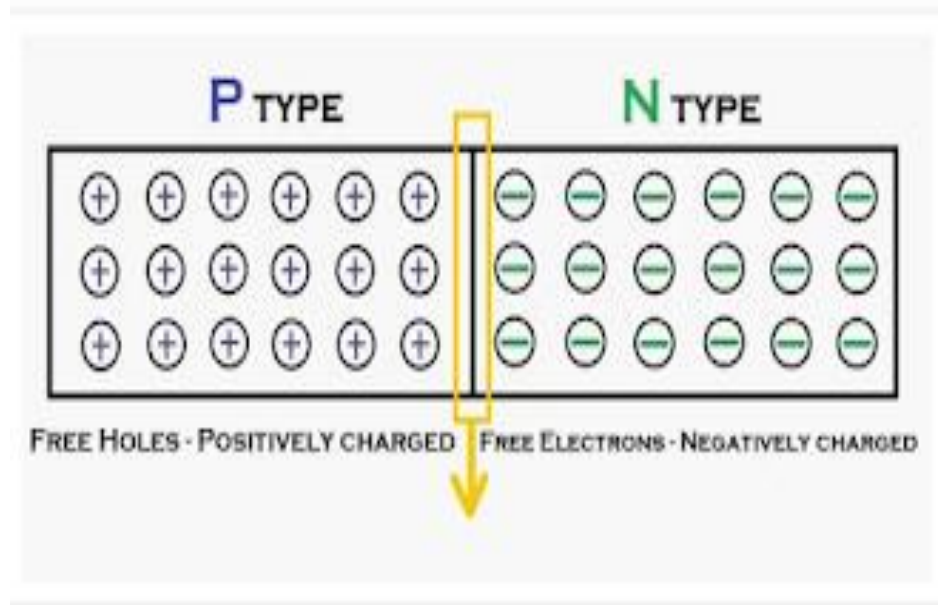
The PN Junction Diode



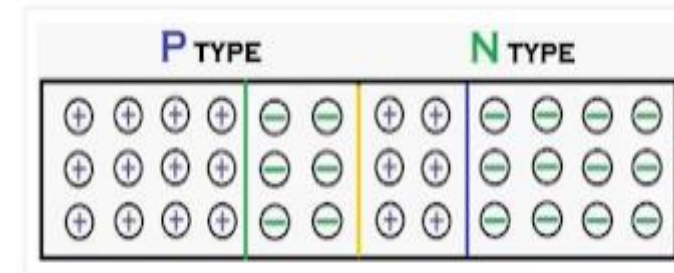
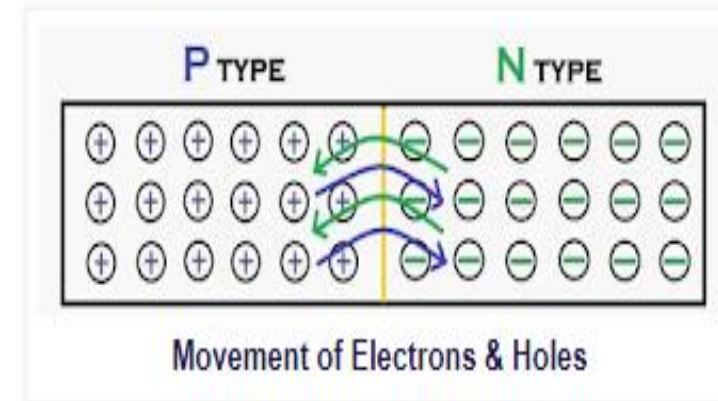
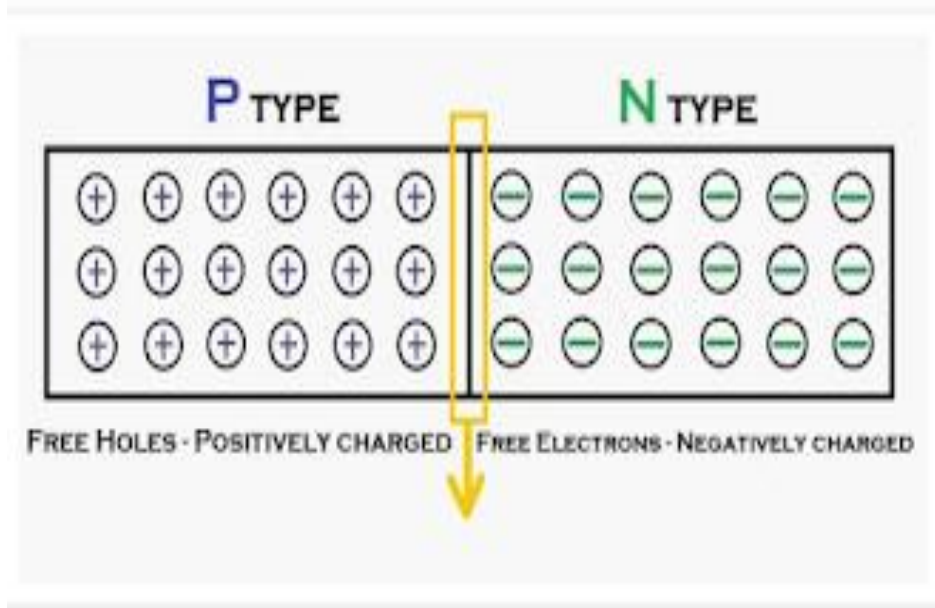
The PN Junction Diode



The PN Junction Diode

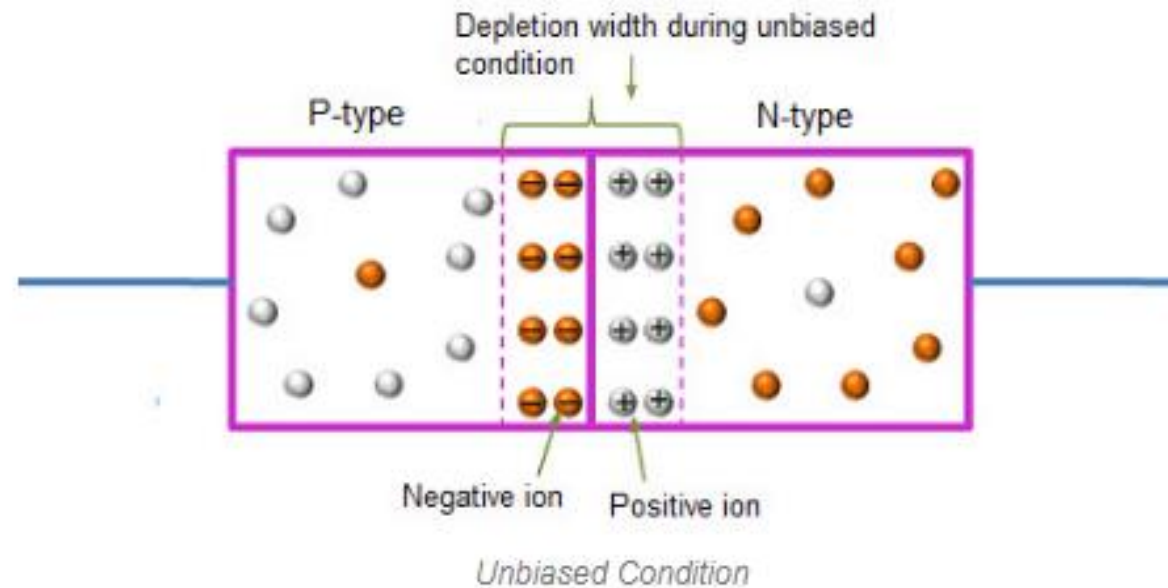


The PN Junction Diode



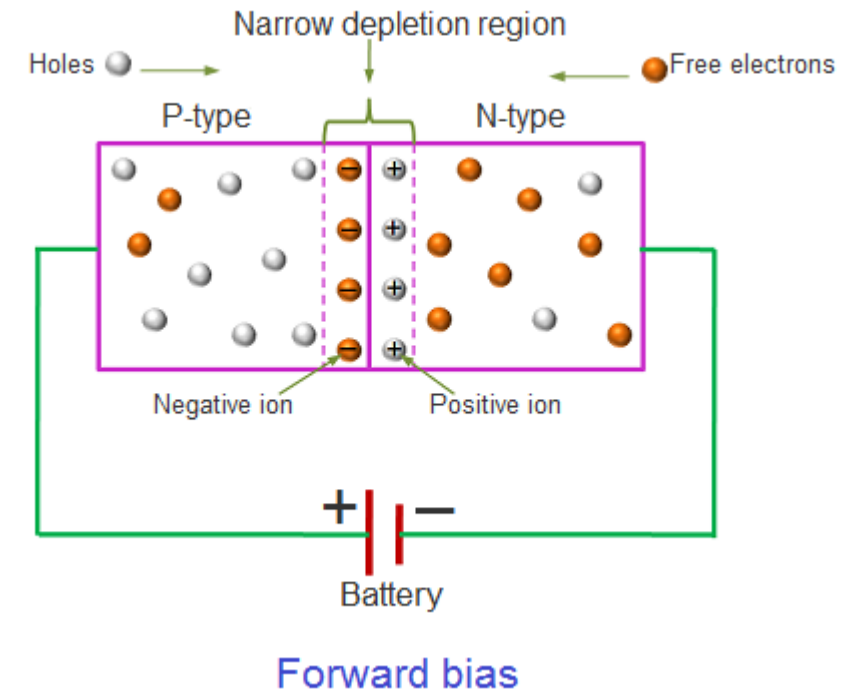
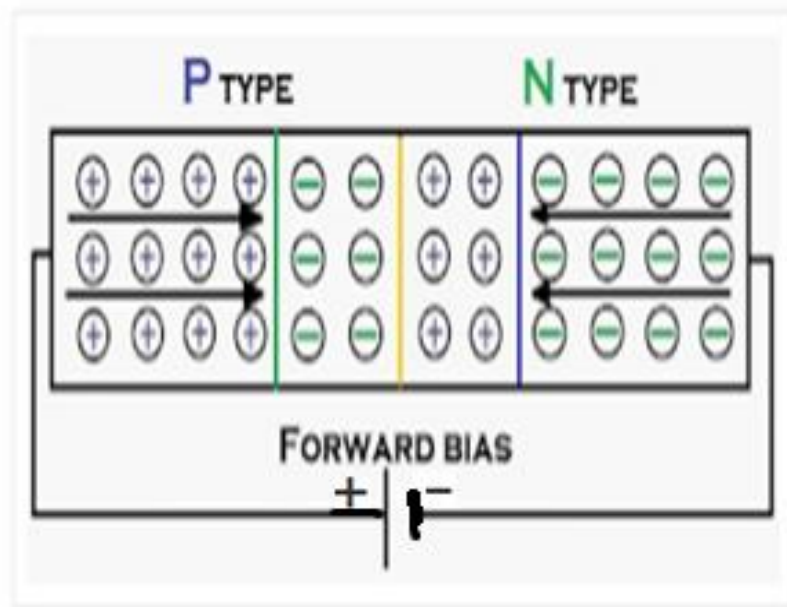
The PN Junction

- The PN Junction Diode UnBiased



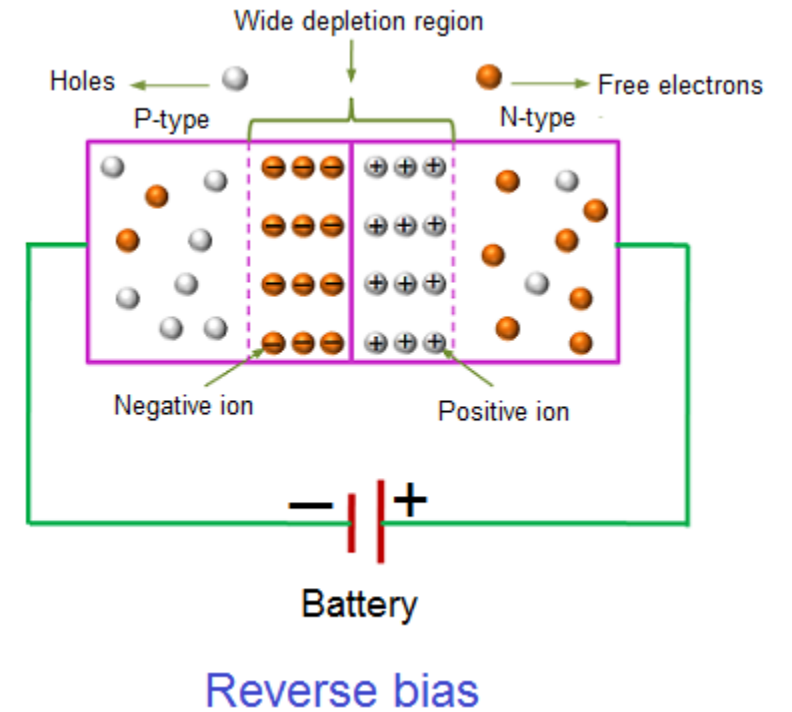
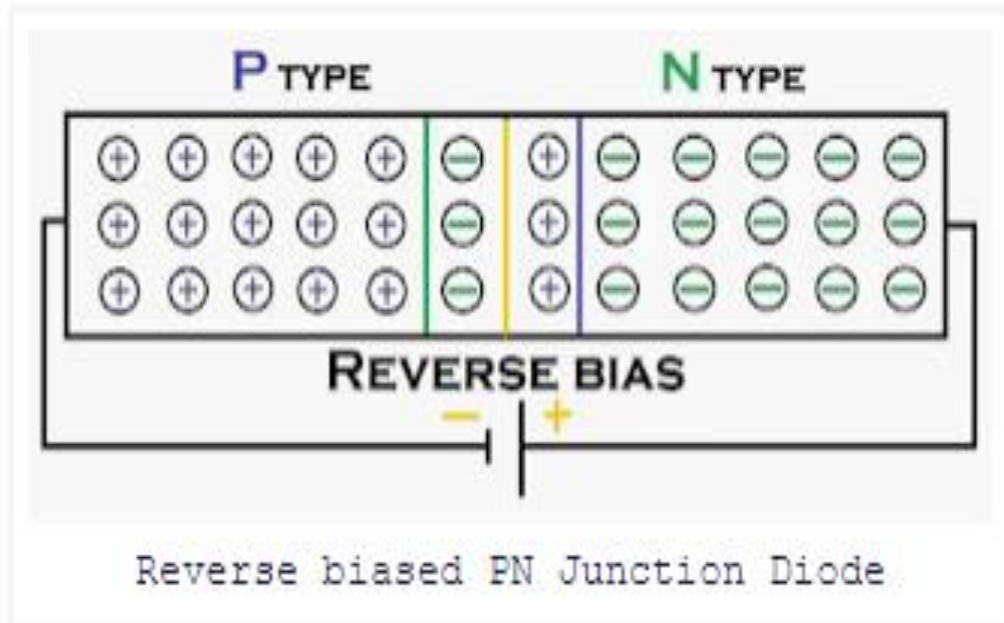
The PN Junction

- Forward Bias PN Junction Diode

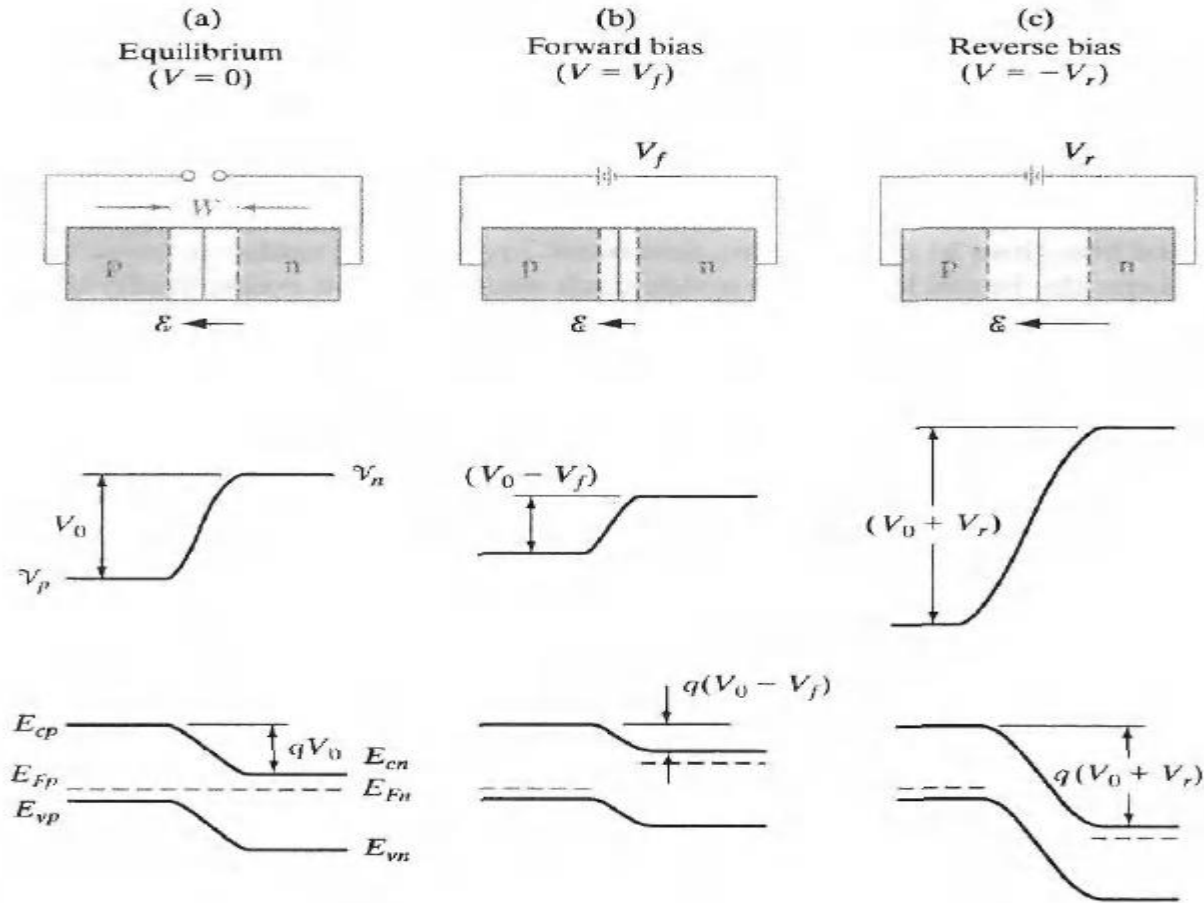


The PN Junction

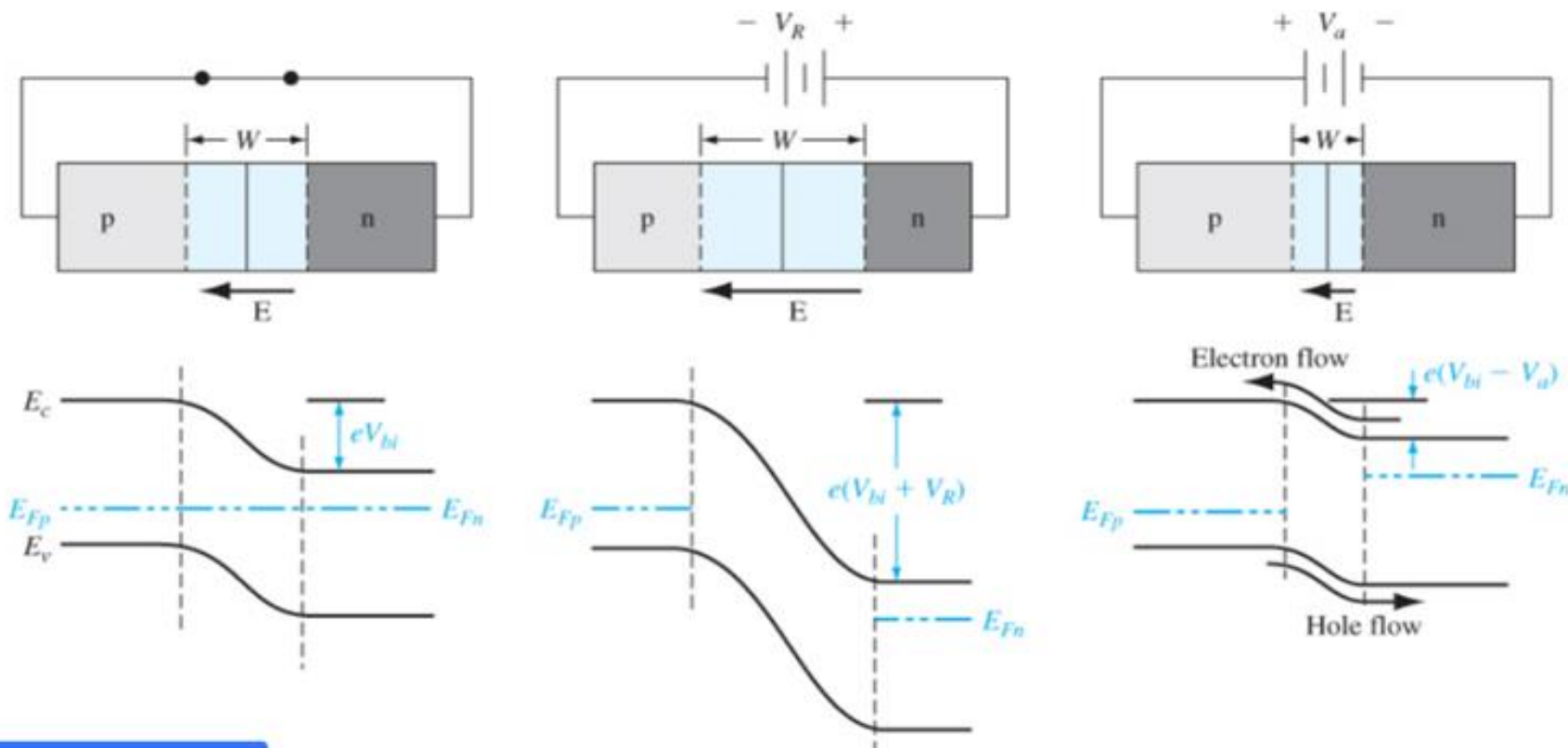
- Reverse Bias PN Junction Diode



Energy Band Bending Diagram PN Junction Diode



Energy Band Bending Diagram PN Junction Diode



Energy Band Bending Diagram PN Junction Diode

The Diode Current Equation

$$I = I_0 \left(e^{\frac{qV}{kT}} - 1 \right)$$

$$K = 1.38 \times 10^{-23} JK^{-1}$$

$$q = 1.6 \times 10^{-19} C$$

$$T = 300 K$$

The Diode Current Equation under
Reverse Bias

$$I = -I_0$$



Dr. Ambedkar
Institute of Technology



Thank You

HAVE A NICE DAY