SUBJECT: BASIC ELECTRONICS

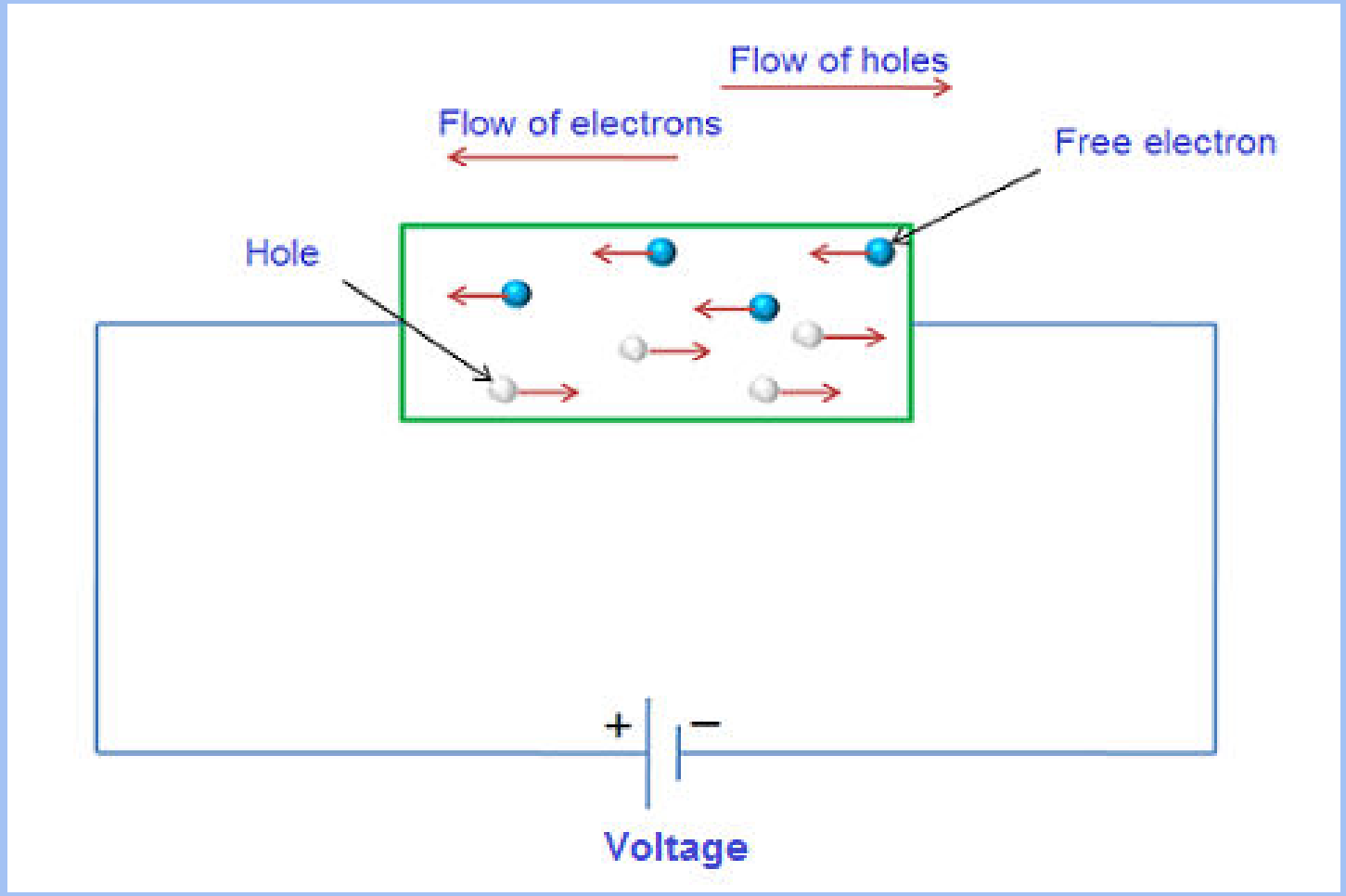
Drift Current in Semiconductor Diode

Elementrix Classes

Drift Current

- Drift current can be defined as the charge carrier's moves in a semiconductor because of the electric field. There are two kinds of charge carriers in a semiconductor like holes and electrons. Once the voltage is applied to a semiconductor, then electrons move toward the +Ve terminal of a battery whereas the holes travel toward the –Ve terminal of a battery.

- Here, holes are positively charged carriers whereas the electrons are negatively charged carriers. Therefore, the electrons attract by the +Ve terminal of a battery whereas the holes attract by the -Ve terminal of a battery


Flow of holes
Flow of electrons
Free electron
Hole
+
−
Voltage

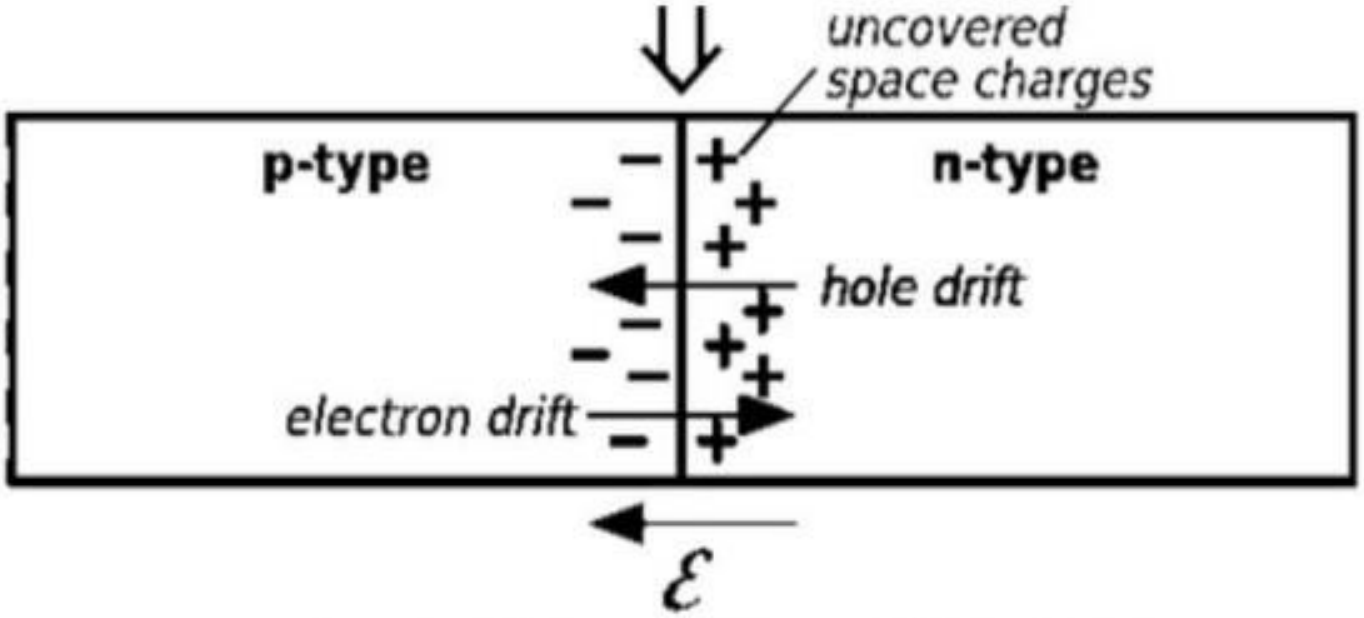


Fig:1.3.1 Drift Current

Drift Current Equation in Semiconductor Diode:

$$I_{drift} = A \times E(qp\mu_p - qn\mu_n)$$

पढ़िए और पढ़ाइये

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