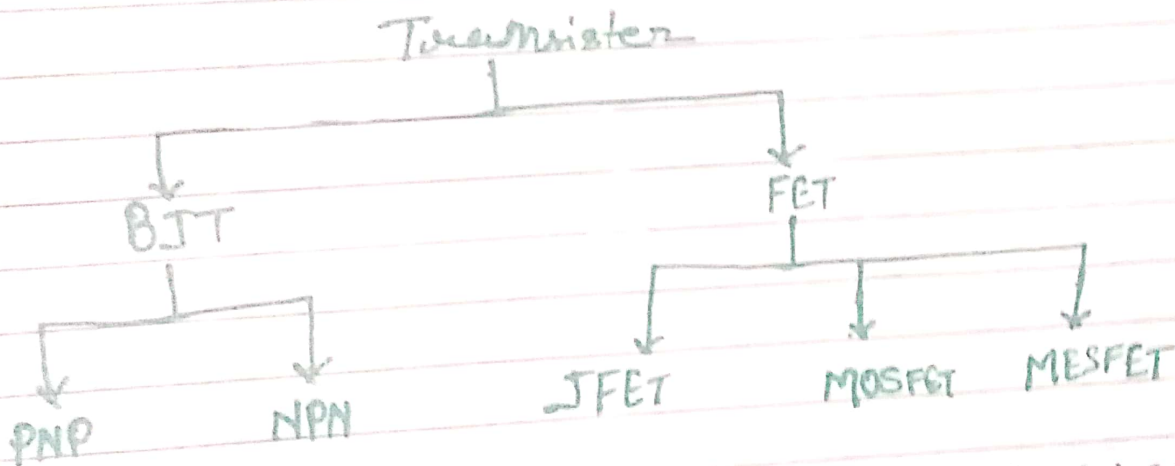


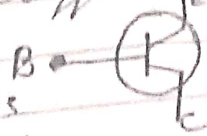
Transistor →

A transistor is a miniature device that is used to control or regulate the flow of electronic signals. (Basically it acts as a switch and amplifier). It is a type of semiconductor device.

Type of transistor →



BJT (Bipolar Junction Transistor) → It is a current controlled device. A BJT consists of three differently doped regions. There can have the configuration of NPN or PNP and the various layers can either be parallel or perpendicular to the surface. Consider a PNP BJT, with three differently doped regions.



- (a) **Emitter region** - This is usually a heavily doped region (P⁺). The emitter 'emits' the carriers into the base.
- (b) **Base region** → This is lightly doped n-region. The base region is also physically thin so that carriers can pass through with recombination.