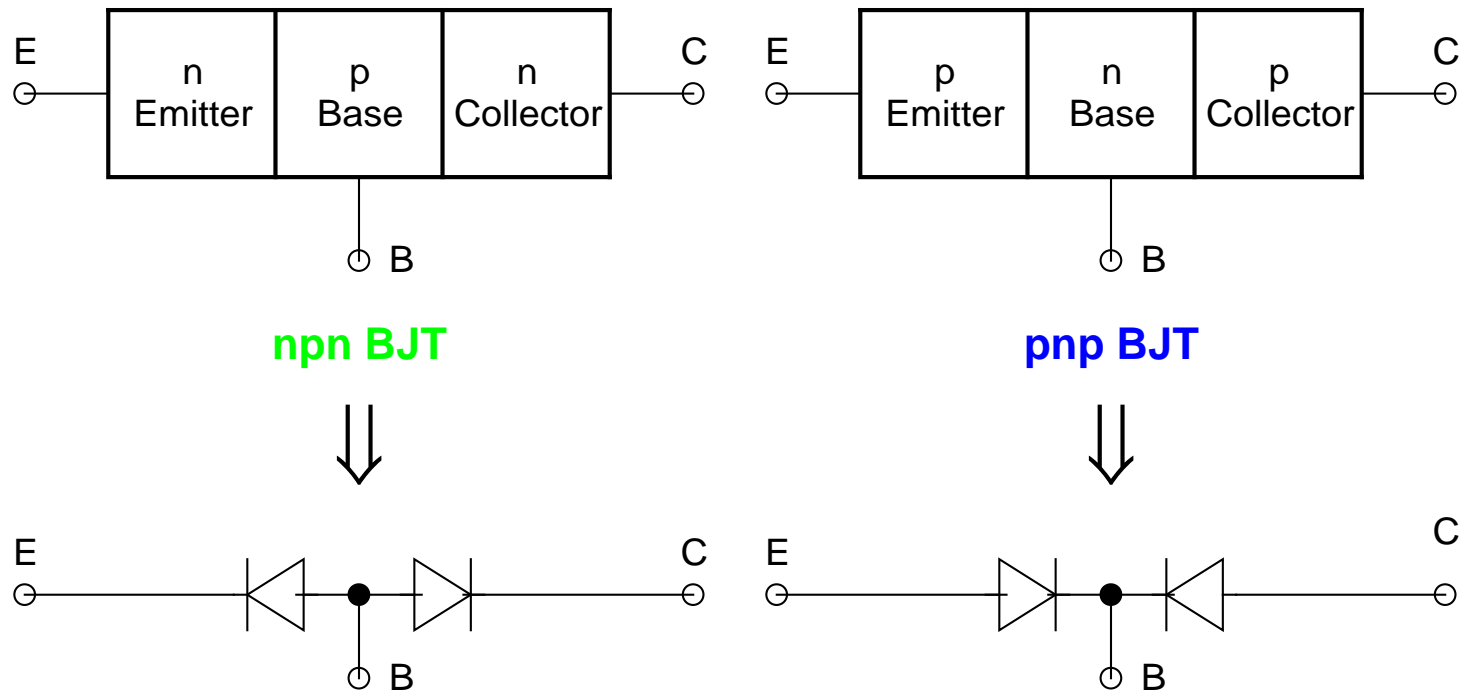


BIPOLAR JUNCTION TRANSISTOR (BJT)

- Basically two *back-to-back diodes*



- Name originates from *transfer of resistor*

- *Three-Layer/Terminal* [*Emitter* (E), *Base* (B), *Collector* (C)] *Two-Junction* [*Base-Emitter* (BE), *Base-Collector* (BC)] device
- Current through *two terminals* (E and C) can be *controlled* by the current through the *third terminal* (B)
 - *Current controlled device*
- *Bipolar device*
 - *Both electrons and holes* participate in *current conduction*

- *Active device*
 - Capable of producing *voltage/current/power gain*
- *Two basic usage:*
 - *Amplification (Analog Circuits)*
 - *Switching (Digital Circuits)*
- *Two Types:*
 - *npn*
 - *pnp*
- *Immensely important device*