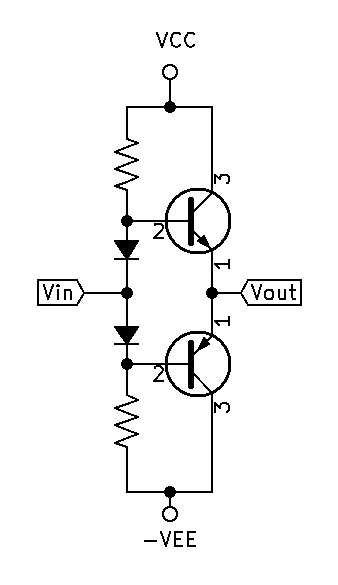
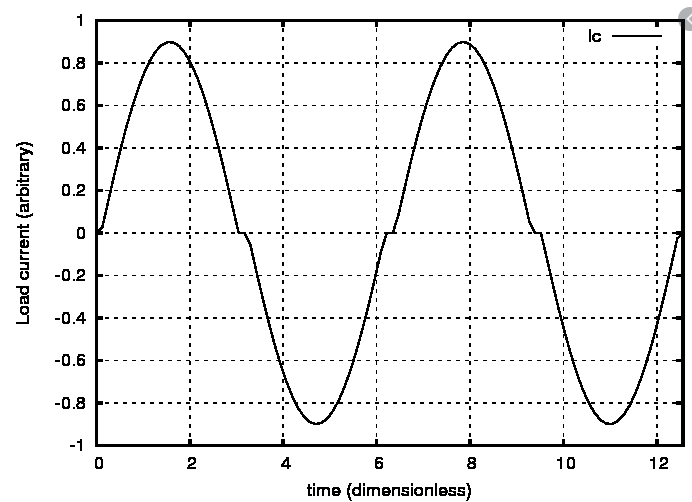
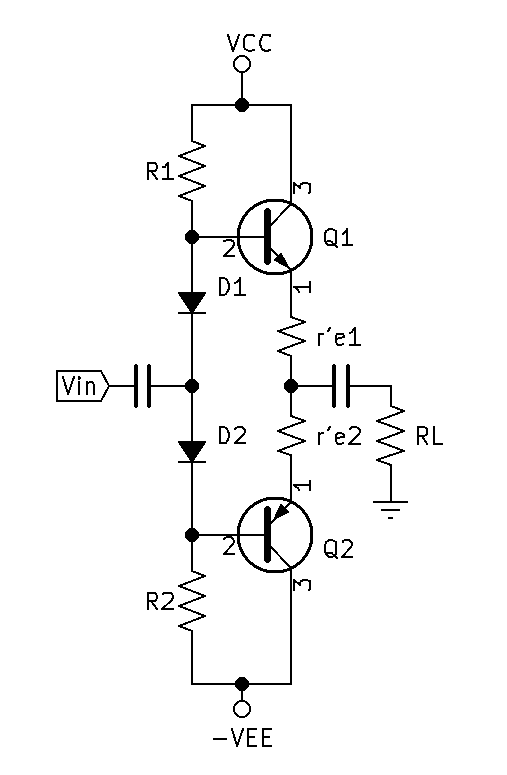


Class AB amplification Characteristics:

* ,
* High Zin and Low Zout
* Improved efficiency over Class A
* Transistors are never on at the same time. Current path is through the load only.
* Transistor Amplification is active for each transistor nearly 180 of the input cycle (on nearly of the time). This means that nearly 360 of the input signal is amplified.
* Achieves a high degree of linearity
* Crossover distortion occurs when both transistors are off.



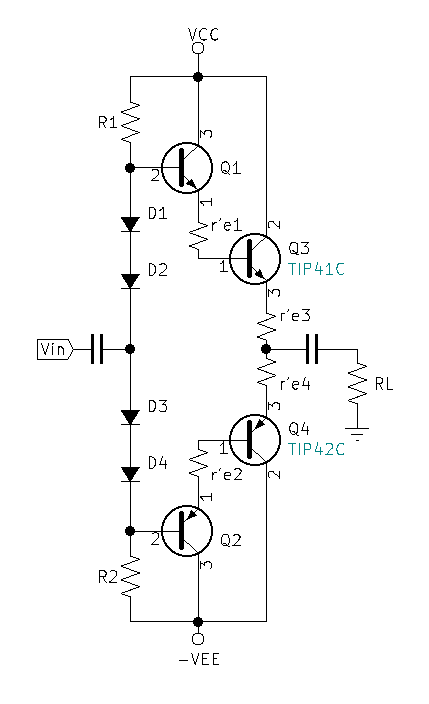


**Design:**

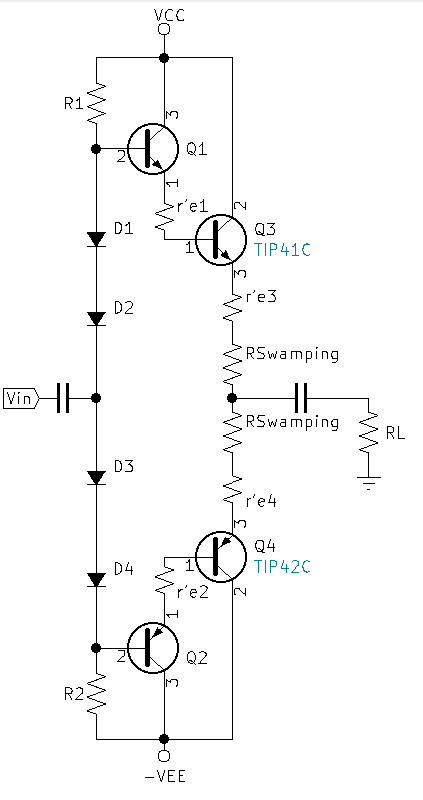
* Treat as though Q1 is on and Q2 is off. Then find Zin and Zout.

**High Power Push-Pull:**

* Follow the previous process, compensate for additional components.



**Shoot-Through:**

* Shoot-Through is a non-desirable condition in which the transistors are conducting current at the same time.
* Shoot-Through can occur due to a voltage bias mismatch between the transistors and the diodes additionally Shoot-Through can be thermally or heat induced.
* Shoot-Through can be eliminated by using a small Swamping Resistor. The larger the Swamping resistor the greater the Cross-Over Distortion will be. Typically 0.1Ω