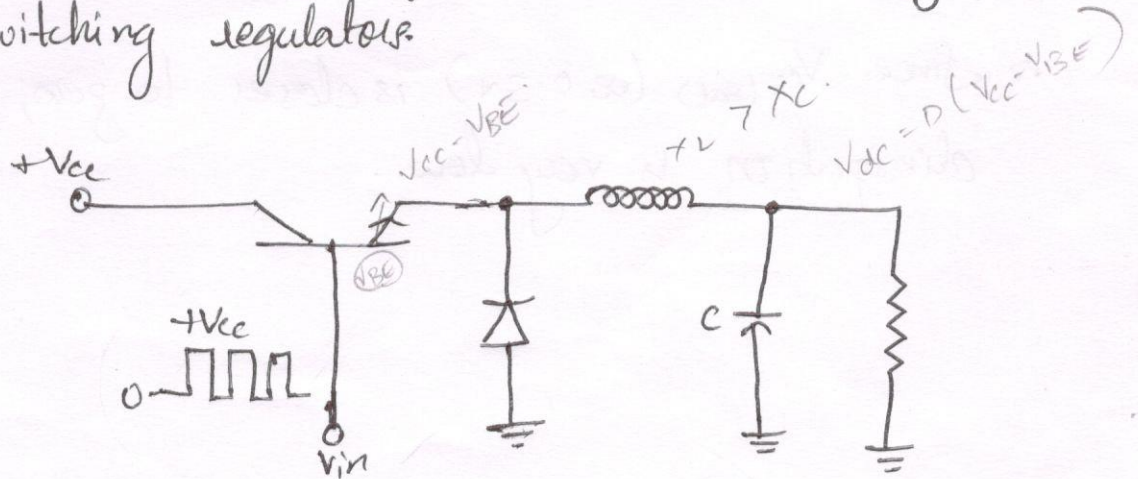


* CLASS-S POWER AMPLIFIER:

→ Class S operation of a transistor is mostly used in switching regulators.



→ A continuous string of pulses of an ~~amplifier~~ amplitude V_{cc} drives the transistor in emitter follower connection.

→ Because of the V_{BE} drop, the voltage driving the filter is a train of pulses with an amplitude of $V_{cc} - V_{BE}$.

→ If R_L is much greater than x_c at the switching frequency, the o/p is a d.c voltage of $V_{dc} = D(V_{cc} - V_{BE})$, where D is the duty cycle of the i/p waveform.

→ Thus, higher the duty cycle larger will be the d.c o/p.

→ The switching regulator uses a class S amplifier in which by varying the duty cycle one can regulate the d.c o/p. Further, since the transistor is switched into either cut off or saturation its power dissipation is much lower than in a series regulator.