



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)
COIMBATORE-35

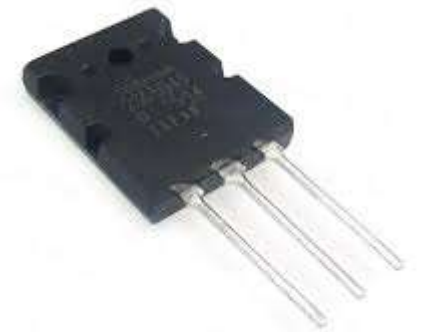
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23EET104 / ANALOG ELECTRONICS CIRCUITS I YEAR / II SEMESTER

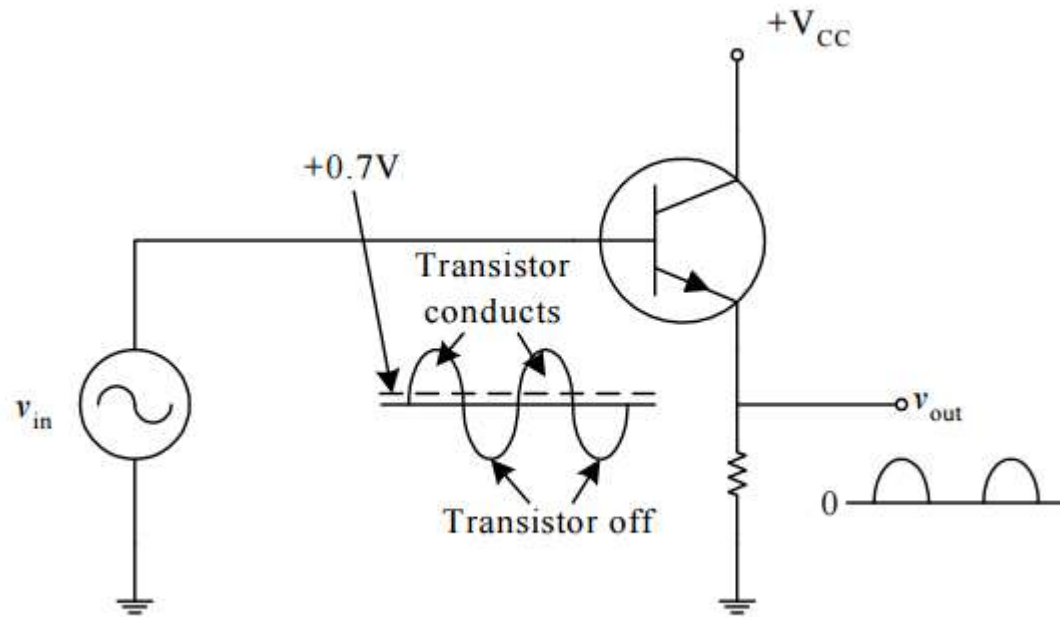
UNIT-III: TRANSISTOR AMPLIFIER

CLASS B AMPLIFIER





Class B Amplifier

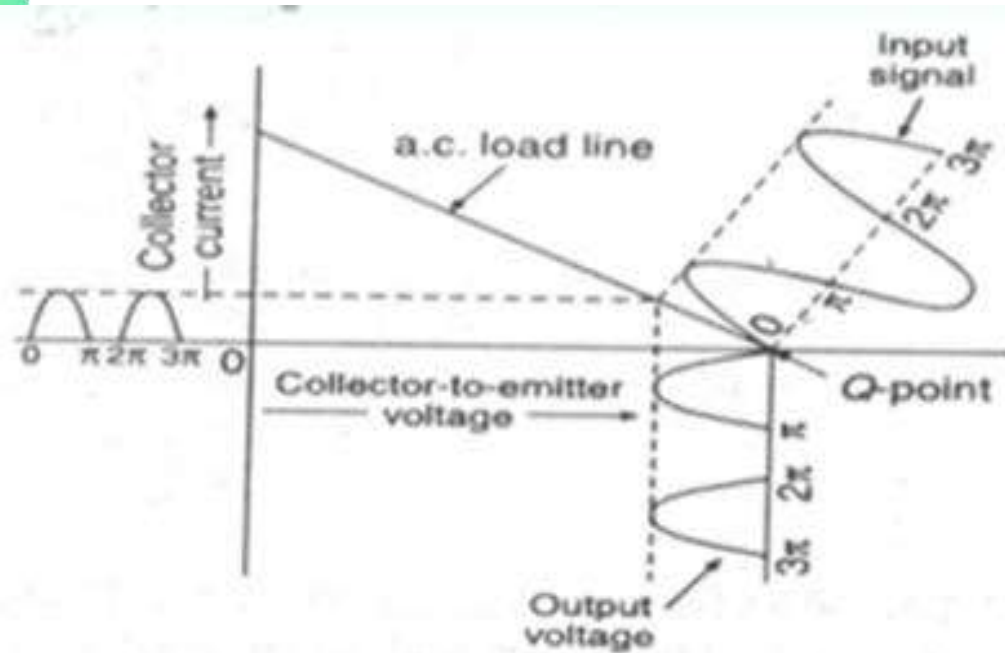


- The output power is obtained for one half cycle of input only.
- The collector current flows for 180 degrees only.
- The Q point is adjusted so that it is in cut off region





Contd.,



Advantages:

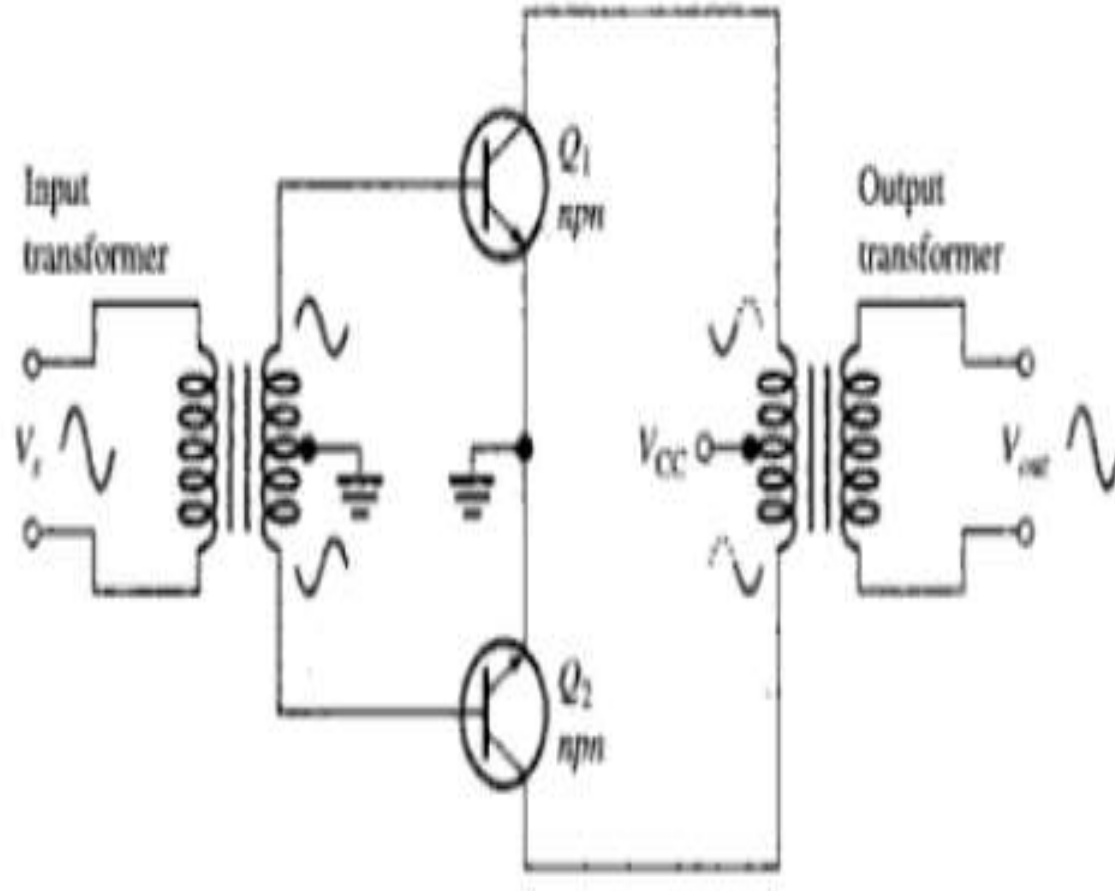
- Impedance with load is possible.
- Second harmonic get automatically cancelled.
- Zero power dissipation.
- **High efficiency** compared with class A amplifiers.

Disadvantage:

- **Crossover distortion** is present in the output waveform.
- Since, the transistor is biased at cut off region the waveform is **distorted near zero crossings**.



Class B Push Pull Amplifier

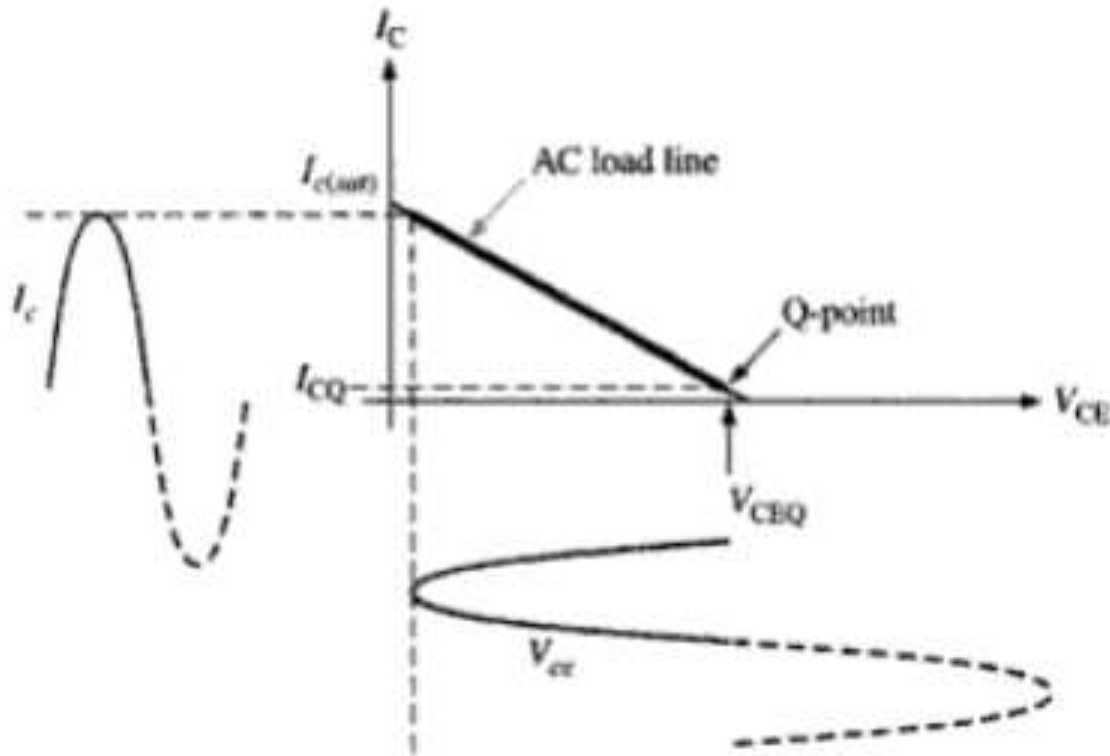


- **Class B amplifier** output collector current flows only for **half cycle**
- To get out for **full input signal** we use **Push Pull** circuit.
- Two transformers are used in Push pull amplifiers.
- One at the input and the other at the load side.
- Both are centre tapped transformers
- Since centre tapped is used Q1 & Q2 are 180 degrees out of phase .





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For positive half cycle: Q1(Active region) gives output and Q2 is OFF(cut off region).

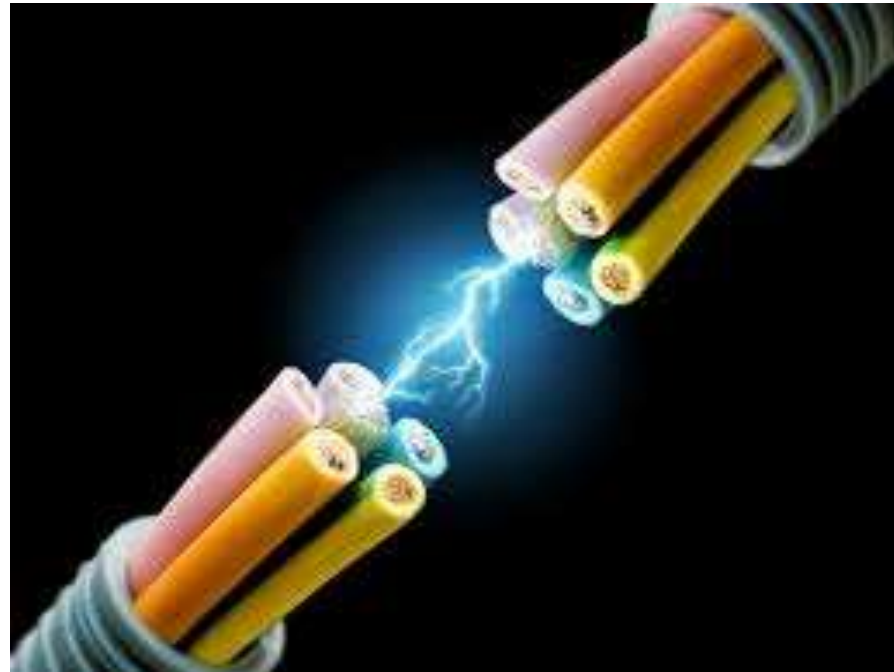
For negative half cycle: Q2 is ON & Q1 is OFF.

Thus at the output we get a full cycle for a full input signal





RECAP....



...THANK YOU

