



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)
COIMBATORE-35

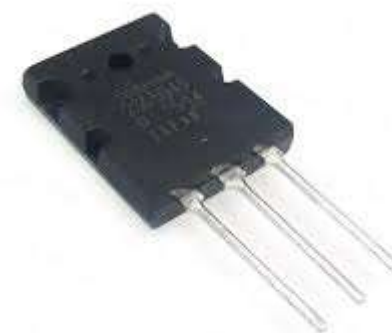
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23EET104 / ANALOG ELECTRONICS CIRCUITS I YEAR / II SEMESTER

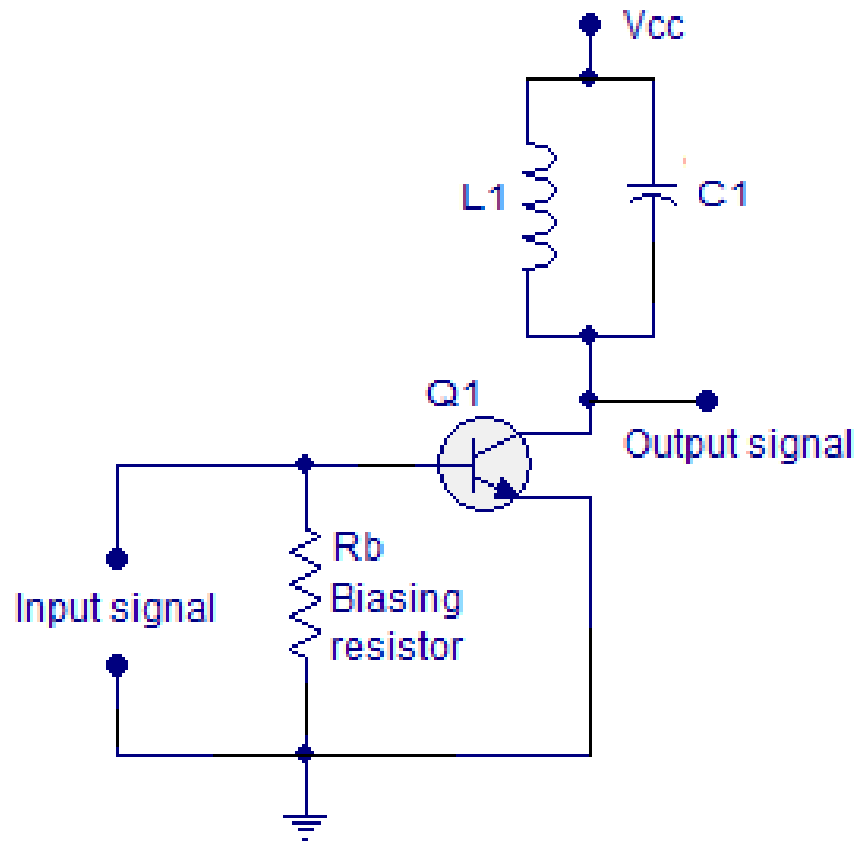
UNIT-III: TRANSISTOR AMPLIFIER

CLASS C AMPLIFIER





Class C Amplifier

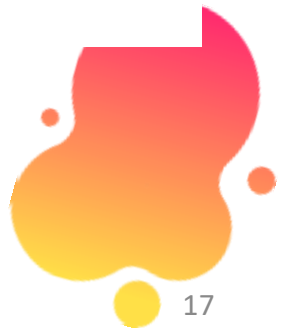
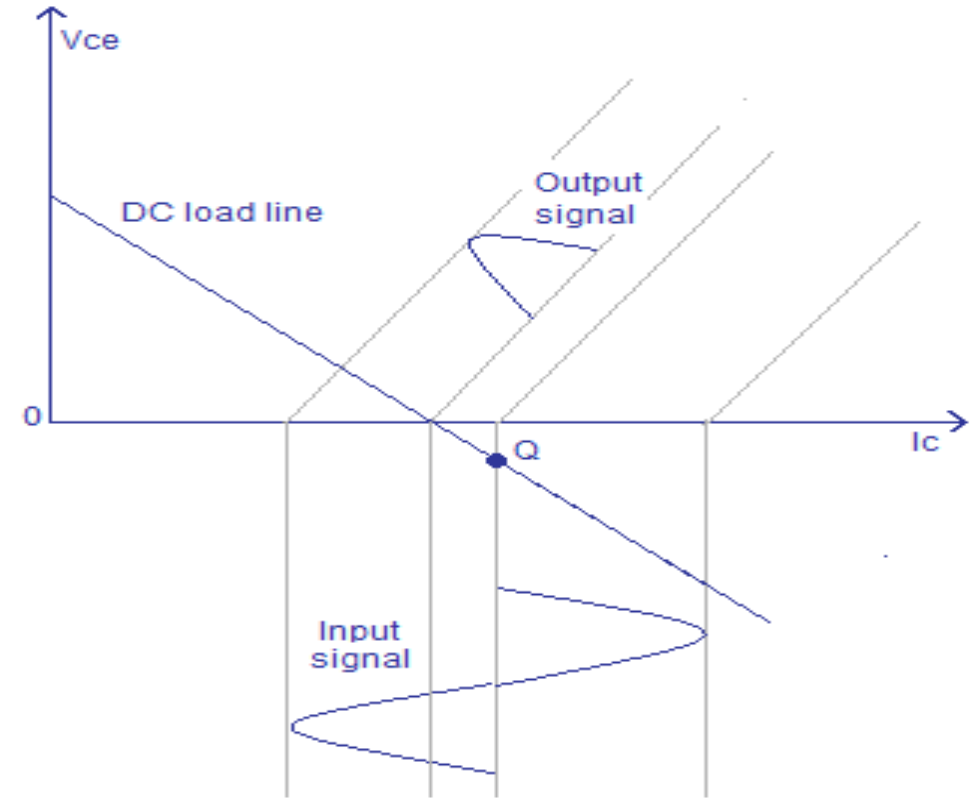
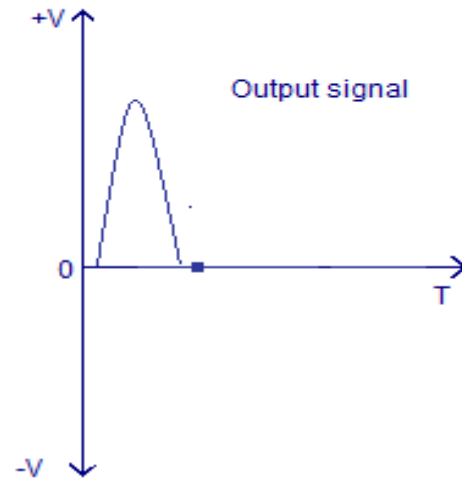
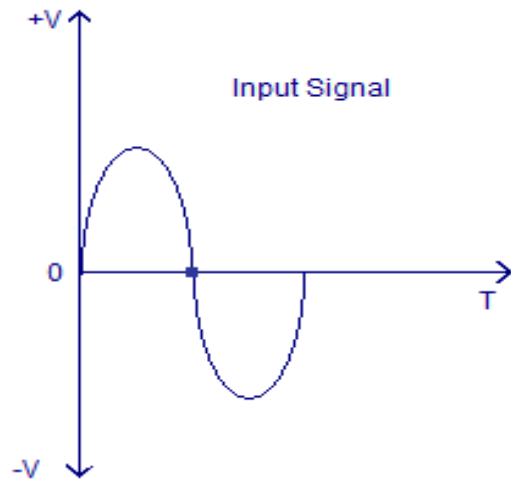


- The transistor conducts for less than one half cycle period of the input i.e **around 80° to 120° angle**.
- This reduced conduction angle increases the efficiency .
- Hence, it is not used in Audio applications.
- Used for **Tuned circuit**.





Load line graph – Class C





Class C Amplifier –contd.



- When the input signal is applied the **tuned circuit starts resonating** at the frequency of the input signal.
- Transistor produces a series of current pulses based on the input.
- By **selecting Proper L1, C1 resonance** can be achieved. This resonance frequency is extracted by the tuned load at the output

Advantages:

- ☐ Less Physical size.
- ☐ High Efficiency (higher than 95%)
- ☐ Low power loss in power transistors

Disadvantage:

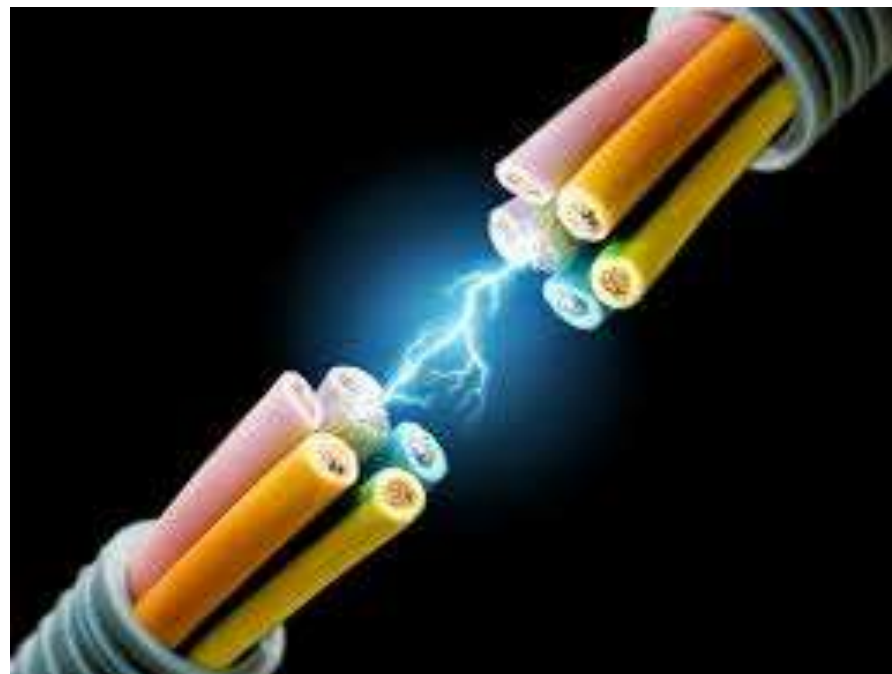
- ☐ Creates lot of RF Interference.
- ☐ Selection of ideal Inductors is problem.

Applications: Tuned amplifiers, RF amplifiers, Oscillators, Booster amplifiers.





RECAP....



...THANK YOU

