CLASS-B : PUSH PULL AMPLIFIER

B. Bhanusree
II yr. ECE - A sec.

* class B :-

(Introduction :)

To improve the full power efficiency of the previous class A amplifier by reducing the wasted power in the form of heat, it is possible to design the power amplifier circuit with two transistors in its output stage producing what is commonly termed as a class B Amplifier also known as a push pull amplifier configuration.

* Push-pull amplifiers use two "complementary" or matching transistors, one being an NPN-type and the other being a PNP-type with both power transistors receiving the same input signal together that is equal in magnitude, but in opposite phase to each other. This results in one transistor only amplifying one half or 180° of the input waveform cycle while the other transistor amplifies the other half or remaing 180° of the input waveform cycle with the resulting "two-halves" being put back together again at the output terminal.
* Then the conduction angle for this type of amplifier circuit is only 180° or 50% of the i/p signal. This pushing and pulling effect of the alternating half cycles by the transistors gives this type