

Unit Name: Analogue Electronics 3 Simulation 1

Title

The Common Base Amplifier

Details

The purpose of this experiment is to test the common base amplifier circuit and evaluate its characteristics.

The Common Base Amplifier Topology.

The DC biasing circuit uses one power supply and is identical to that of the common emitter amplifier with voltage-divider biasing. Thus, the same technique used for β -independent operating point biasing in the common emitter amplifier will work for this application.

As shown from this circuit, the input signal is coupled to the emitter of the transistor through the DC blocking capacitor C_{in} , and the output signal is taken from the collector via the coupling capacitor C_{out} . The base capacitor C_B is used to bypass the base resistors R_1 and R_2 , thereby putting the base at AC ground