

Lecture 07 – PNPs, Biasing, and The Common Emitter Amplifier

Which way does the arrow point in a PNP transistor, and which arm is it on?

Draw a large signal model for a PNP transistor in saturation and forward active modes

Draw a small signal model for a PNP transistor. How did you derive each value?

What's a typical way to get small signals into a biased BJT? What's the mid-band?
Draw a picture and list the issues with series voltage source biasing.

When you're building a biasing circuit for a BJT device what variable do you usually try to control? Draw a circuit that does this.

Draw a picture a list the issues with series resistor current control biasing.

Draw a picture of the “standard” common emitter biasing. What does C_e do?

Can you use a voltage divider formula when biasing a BJT base with two resistors?

Draw a common emitter amplifier using any biasing scheme.

What is the defining feature of a common emitter and why is it easy to analyze?

What are some common amplifier specifications that we might care about?