Lecture 05 -- Introduction to Bipolar Junction Transistors

What are the two types of Bipolar Junction Transistors (BJTs)

What is the difference between the two junctions in a BJT?

What are the three terminals of a BJT? What does the emitter emit?

How is an npn BJT different from back-to-back diodes?

Why does a BJT amplify current?

What are the regions of operation for a BJT and under what voltage conditions is a BJT in each?

What is base width modulation and how does it affect BJT output current?

Draw an Ic-Vce curve for a BJT parametrized in Vbe. Label the Early Voltage on the graph and draw boundaries between the forward active and saturation regions.

Draw a large signal model of the BJT in the forward active region and the saturation region.

Draw a small signal model for a BJT in the forward active region.