E151 Lecture 7
Common Emitter Amplifier and Biasing BJTs

Matthew Spencer
Harvey Mudd College
ENGR151

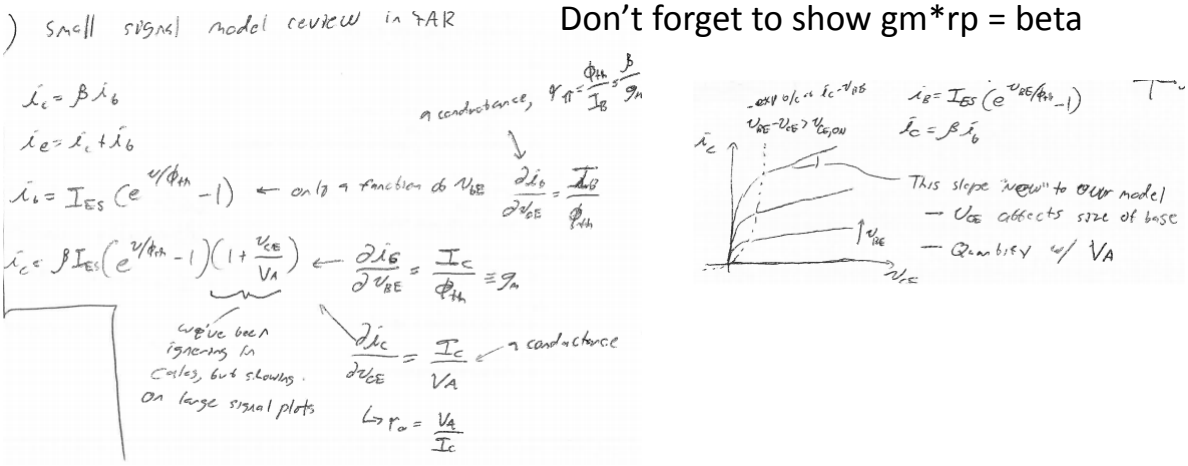
Disclaimer

These are notes for Prof. Spencer to give the lecture, they were not intended as a reference for students. Students asked for them anyway, so I'm putting them up as a courtesy. Remember that they are not intended as a substitute for attending lecture.

Small Signal Derivation

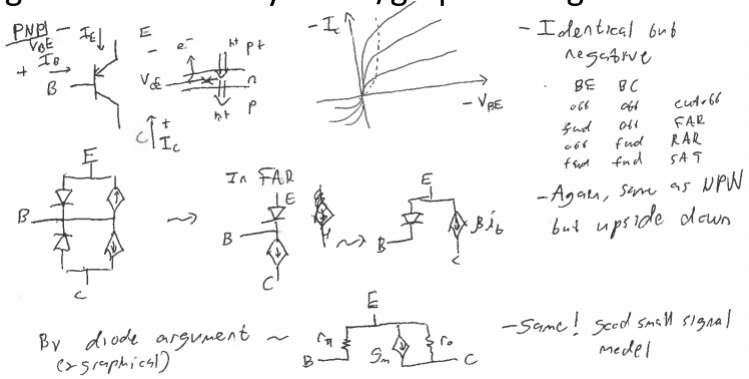
- Graphical, Ebers-Moll Equation Based, Diode argument, ic linear ib!

Don't forget to show gm*rp = beta



What About PNP? Large signal negative

- Backwards from NPN, diodes point IN! (care w/ i direction)
- Region of operation table to emphasize
- Small signal is identical by diode/graphical argument



PNP Exercise for Class

- Have them work example