

*Lecture 18 -- OCTC and SCTC*

What transfer function do open circuit time constants assume for an amplifier bandwidth? What pole do we assert is dominant? Why?

How do the open circuit time constants of a transfer function relate to the pole time constants?

Describe how to calculate an open circuit time constant

What's the worst case error for open circuit time constants in a 2 pole system? Why are we OK with that error?

Use open circuit time constants to calculate the high frequency cutoff of a common emitter

What's a shortcut for finding the resistance seen by  $C_{mu}$ ?

What do we use short circuit time constants to calculate?

What is the assumed form of the transfer function in a SCTC analysis?

How do the sum of the pole frequencies relate to the sum of the SCTC? What is a SCTC?

What capacitors are included in an SCTC analysis?

What are some conditions under which a SCTC analysis will prove inaccurate?