Last time!

excess noise factor

$V_a = \frac{1}{g_{0h}}$

$V_a = 10^{10} \times 10^3$

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Linearization

What is the bias point?

What is the small signal model?

What is the voltage/current control signal?
Intrinsic Gain

\[ A_v = \frac{9 m}{g_d} = \frac{I_c}{V_A} = \frac{I_c}{V_{TH}} \leq 25 mV \]

\[ 400 - 6000 \]

Create an EEP - where does it go?

\[ V_{ce} = 6.25 \]

\[ V_{ce} = 600 mV \]