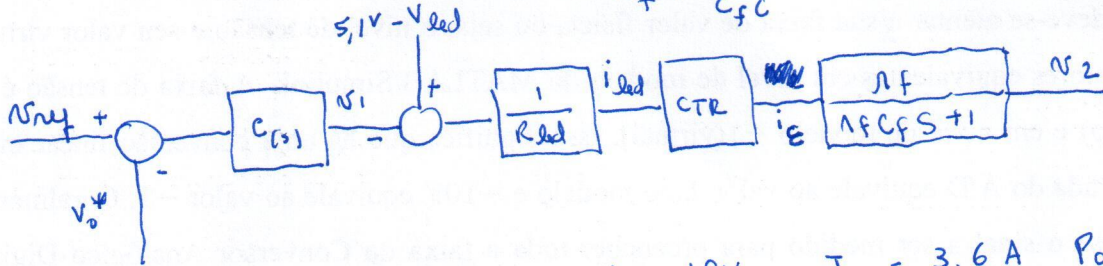


$$i_{led} = \frac{5,1V - V_{led} - V_L}{r_{led}}$$

$$i_c \approx i_E = i_{led} CTR$$

$$v_2 = i_E \cdot z_f = CTR i_{led} \frac{r_f \frac{1}{C_f s}}{r_f + \frac{1}{C_f s}} = CTR i_{led} \frac{r_f}{r_f C_f s + 1}$$



Ponto de operação: $V_0 = 19V$ $I_p = 3,6A$ $P_0 = 90W$

Perturbação de pequenos sinais.

