

$$U_{CEQ} = 2,5 \text{ V} \quad I_{CQ} = 5 \text{ mA}$$

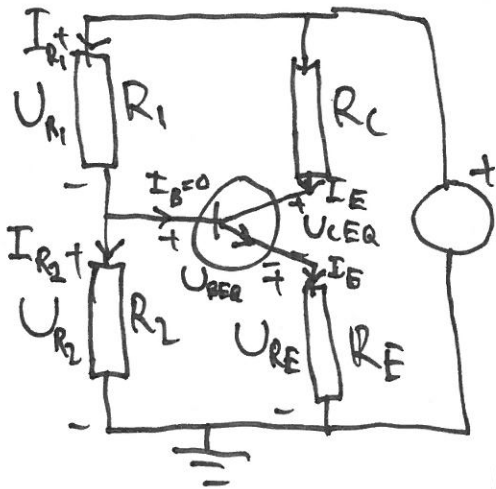
$$U_{BEQ} = 0,7 \text{ V}$$

$$E = 12 \text{ V} \quad U_{RE} = 2 \text{ V}$$

$$I_{R2} = 0,5 \text{ mA}$$

B stor $\Rightarrow I_E \approx I_{CQ}, I_B \approx 0$

Likströmschema:



Ohms lag:

$$U_{RE} = I_E \cdot R_E \Rightarrow R_E = \frac{U_{RE}}{I_{CQ}} = \frac{2}{5 \text{ mA}} = 400 \Omega$$

KVL:

$$E - R_C \cdot I_E - U_{CEQ} - U_{RE} = 0$$

$$R_C = \frac{E - U_{CEQ} - U_{RE}}{I_{CQ}} = \frac{12 - 2,5 - 2}{5 \text{ mA}} = 1500 \Omega$$

$$U_{R2} = U_{RE} + U_{BEQ} = 2 + 0,7 = 2,7$$

$$R_2 = \frac{U_{R2}}{I_{R2}} = \frac{2,7}{0,5 \text{ mA}} = 5,4 \text{ k}\Omega$$

$$U_{R1} = E - U_{R2} = 12 - 2,7 = 9,3 \text{ V}$$

$$I_B \approx 0 \Rightarrow I_{R1} \approx I_{R2} \Rightarrow$$

$$R_1 = \frac{U_{R1}}{I_{R2}} = \frac{9,3}{0,5 \text{ mA}} = 18,6 \text{ k}\Omega$$

$R_E = 400 \Omega, R_C = 1,5 \text{ k}\Omega, R_1 = 18,6 \text{ k}\Omega,$
 $R_2 = 5,4 \text{ k}\Omega$