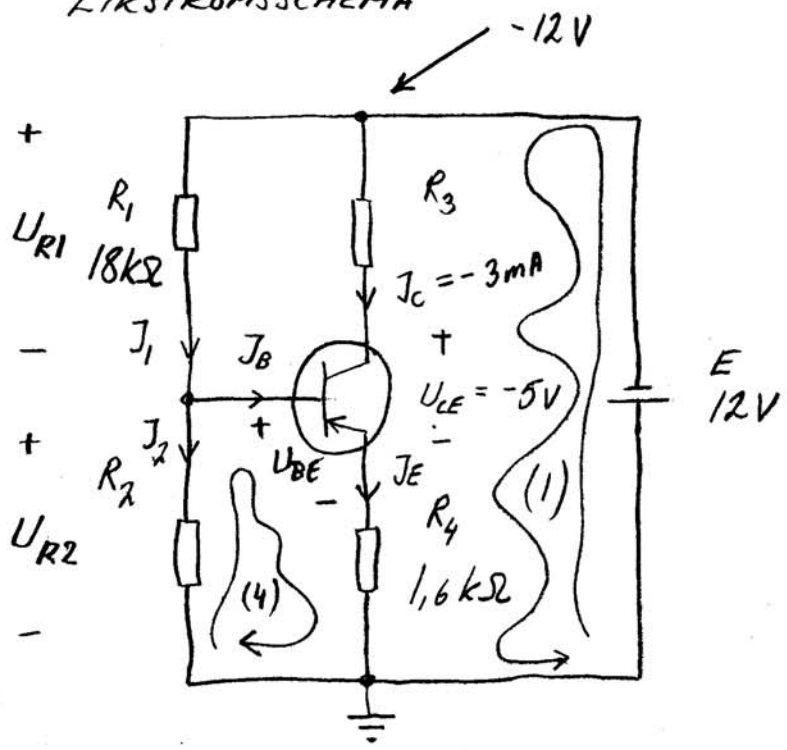
E4

LIKSTRÖMSSCHEMA




$$-E - R_3 J_C - U_{CE} - R_4 J_E \quad \ldots \quad (1)$$

$$J_E = J_B + J_C \quad \ldots \quad (2)$$

$$J_B = \frac{J_C}{h_{FE}}$$

$h_{FE} = 140$ ENLIGT DATABLAD FÖR BC177 SID 110. (ALT. GRAFER SID 112) $\Rightarrow J_B = -22\mu A$

INS I (2) $\Rightarrow J_E \approx -3mA \ (\approx J_C)$

INS I (1) $\Rightarrow R_3 = 733\,\Omega$

$$R_2 = \frac{U_{R2}}{J_2} \quad \ldots\ldots (3)$$

$$+ U_{R2} - U_{BE} - R_4 J_E = 0 \quad \ldots\ldots (4)$$

BILAGA SID 122 $\Rightarrow U_{BE} = -0{,}67\ V$

INS I (4) $\Rightarrow U_{R2} = -5{,}47\ V$

$$\left.\begin{aligned} J_2 &= J_1 - J_B = \frac{U_{R1}}{R_1} - J_B \\ \underbrace{-E}_{-12V} &= U_{R1} + U_{R2} \Rightarrow U_{R1} = -6{,}53\ V \end{aligned}\right\} \rightarrow J_2 = -341\,\mu A$$

INS I (3) $\Rightarrow \underline{R_2 = 16{,}1\ k\Omega}$