



Ex:

$$U = 12V$$

$$I_c = 10mA$$

$$U_e = 1,2V$$

$$U_b = 1,2 + 0,7 = 1,9V$$

$$U_c = \frac{12}{2} = 6V$$

$$i_b = \frac{10mA}{200(\beta)} = 50\mu A$$

$$R_E = \frac{1,2V}{10,05mA} \approx 120\Omega$$

$$i_e = (\beta \times i_b) + i_b = (\beta + 1) \cdot i_b$$

$$i_b = \frac{i_c}{\beta}$$

$$R_c = \frac{6V}{10mA} = 600\Omega$$

$$U_{Rb1} = 12V - 1,9V = 10,1V$$

$$R_{b1} = \frac{10,1V}{(11 \times 50\mu A)} = 18.364\Omega = \frac{18200\Omega}{18700} \begin{matrix} E96 \\ E48 \end{matrix}$$

$$R_{b2} = \frac{1,9V}{(10 \times 50\mu A)} = 3.800\Omega = \frac{3830\Omega}{11} \begin{matrix} E96 \\ E48 \end{matrix}$$