

analoge Schaltungstechnik
Praktikum 1 - Protokoll

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2.2.

a)

$$I_C = I_B \cdot B = 200 \cdot 5\mu A = 1mA$$

$$I_E = I_B + I_C = 5\mu A + 1mA = 1,005mA$$

$$U_{RC} = I_C \cdot 6,2k\Omega = 1mA \cdot 6,2k\Omega = 6,2V$$

$$U_{RE} = I_E \cdot 1k\Omega = 1,005mA \cdot 1k\Omega = 1,005V$$

$$U_{CE} = U - (U_{RC} + U_{RE}) = 15V - (6,2V + 1,005V) = 7,795V$$

b)

$$U_B = -1V$$

$$I_K = I_E = I_C = 1mA$$

$$U_{RC} = I_C \cdot 6,2k\Omega = 1mA \cdot 6,2k\Omega = 6,2V$$