EXEMPLO (cont.)

$$\alpha_f = \frac{100}{101} = 0{,}990 \qquad \alpha_R = \frac{6}{7} = 0{,}857$$

$$I_{DE} = \frac{10^{-14}}{0{,}990} \cdot \exp\left(\frac{0{,}7}{0{,}025864}\right) = 5{,}727\ \text{mA}$$

$$I_{DC} = \frac{10^{-14}}{0{,}857} \cdot \exp\left(\frac{0{,}7}{0{,}025864}\right) = 6{,}615\ \text{mA}$$

No nó coletor

$$\alpha_f I_{DE} = I_C + I_{DC}$$

$$I_C = \alpha_f I_{DE} - I_{DC}$$

$$I_C = 0{,}990 \times 5{,}727 \times 10^{-3} - 6{,}615 \cdot 10^{-3}$$

$$\boxed{I_C = -945\ \mu\text{A}}$$

No nó emissor

$$\alpha_R I_C = I_{DE} + I_E$$

$$I_E = \alpha_2 I_C - I_{DE}$$

$$I_E = 5{,}727 \cdot 10^{-3} - 0{,}857 \cdot 6{,}615 \cdot 10^{-3}$$

$$\boxed{I_E = 56{,}89\ \mu\text{A}}$$

No nó de BASE

$$I_B = I_E - I_C = 56{,}89 + 945 = 1002\ \mu\text{A}$$