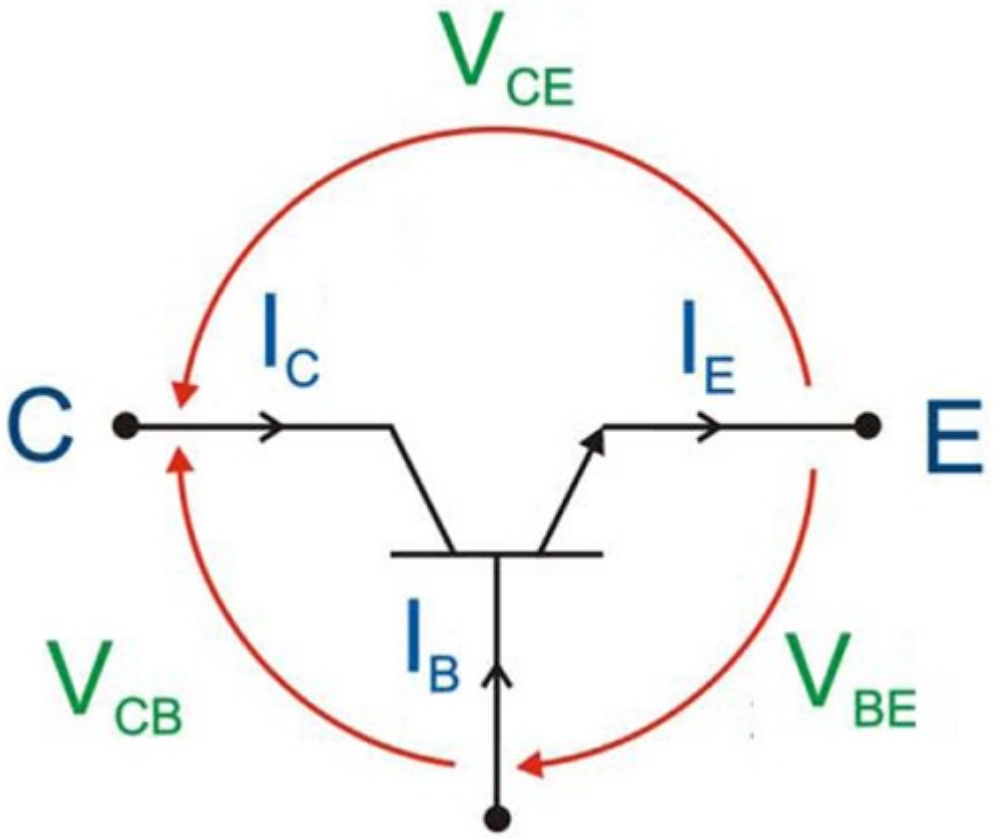
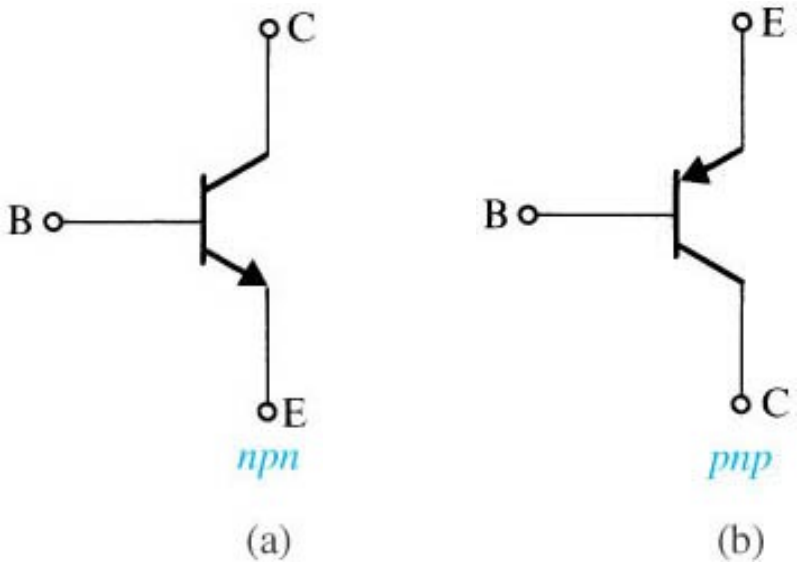
Aula 19 - Transistor Bipolar



$$I_C = \beta I_B$$
$$\beta = 100\text{-}500$$
$$I_E = I_C + I_B$$
$$= (\beta+1) I_B$$

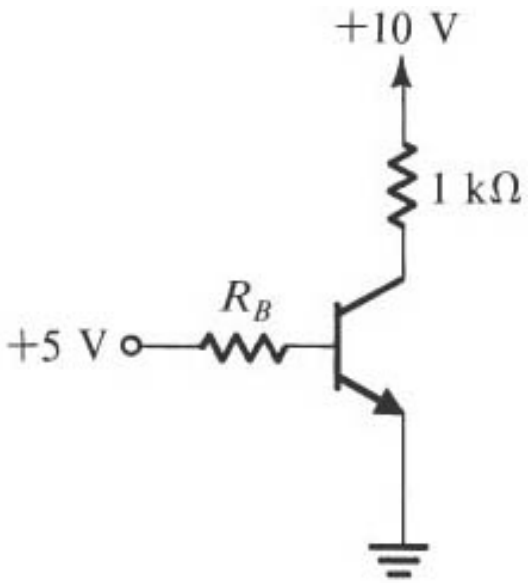
$$V_{BE} = 0{,}7V$$
$$V_{CE} = V_{BE} + V_{CE}$$

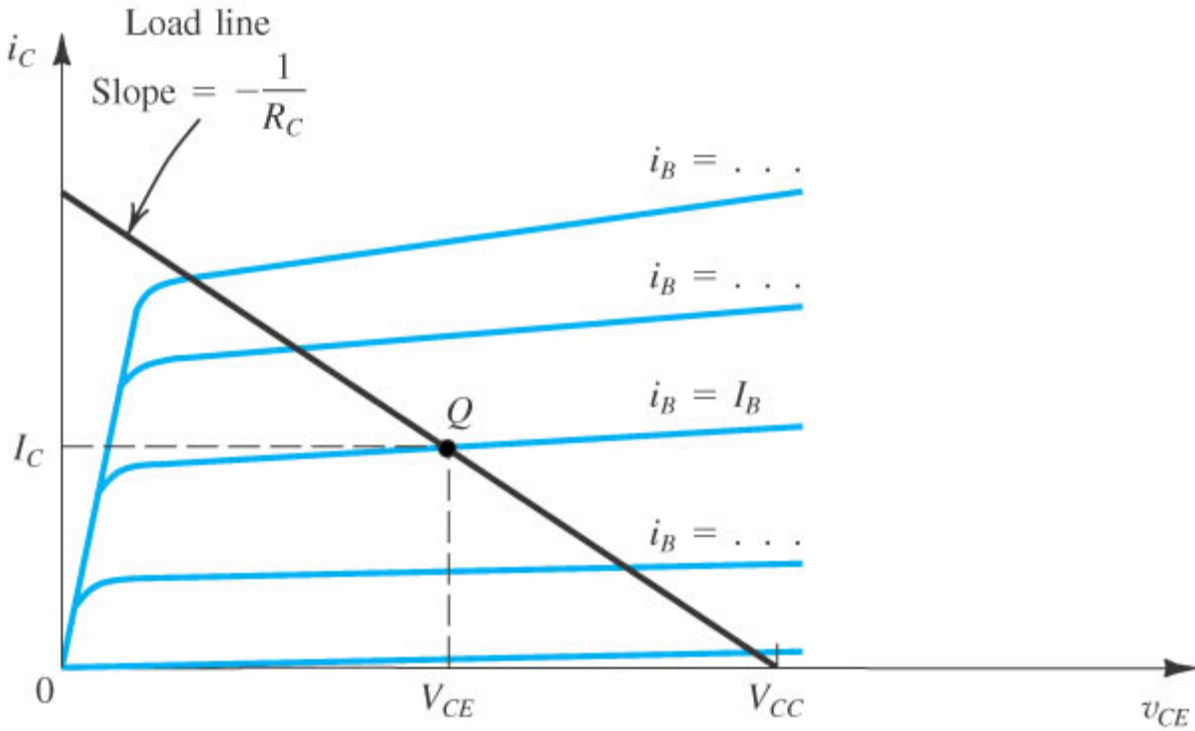


$$I_C = \beta I_B$$
$$\beta = 100\text{-}500$$
$$I_E = I_C + I_B$$
$$= (\beta+1) I_B$$

$$V_{BE} = V_{EB} = 0{,}7V$$
$$V_{CE} = V_{BE} + V_{CB}$$
$$V_{EC} = V_{EB} + V_{BC}$$

Figure 5.13 Circuit symbols for BJTs.





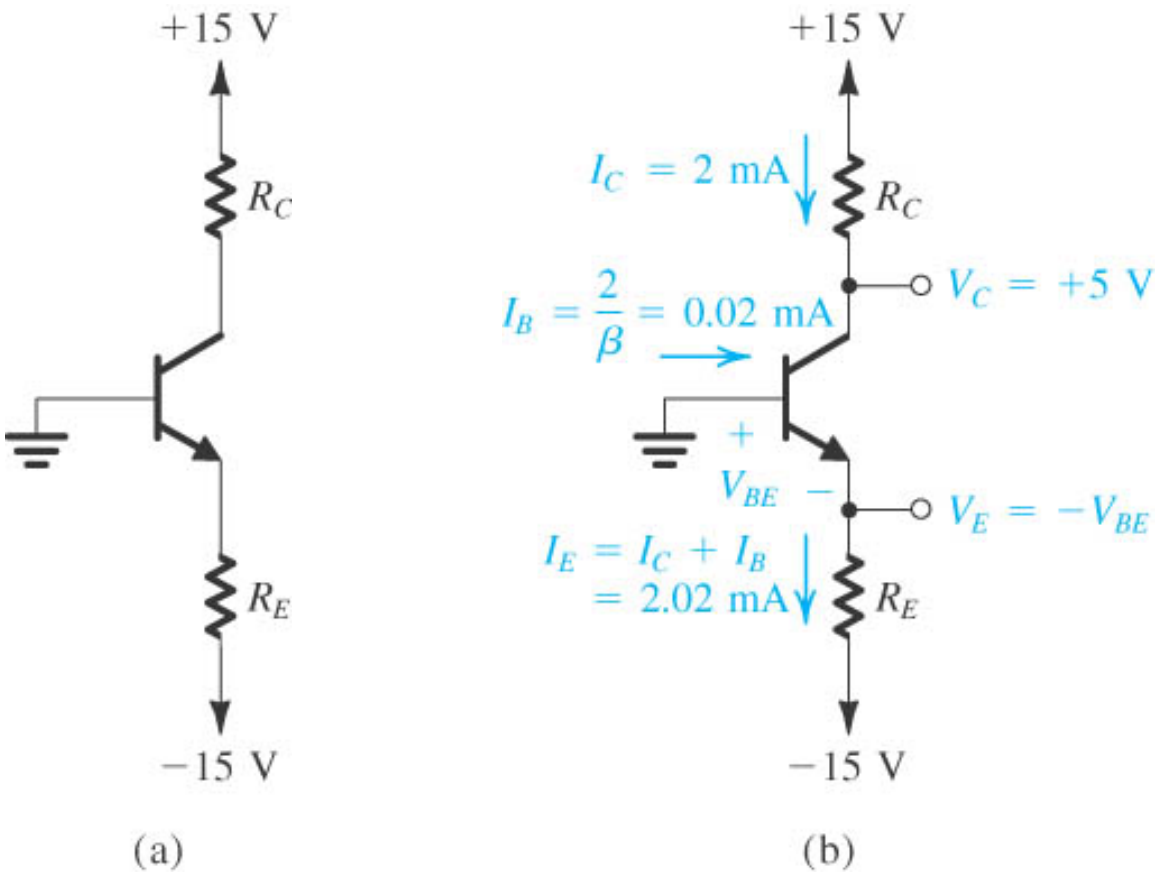


Figure 5.15 Circuit for Example 5.1.

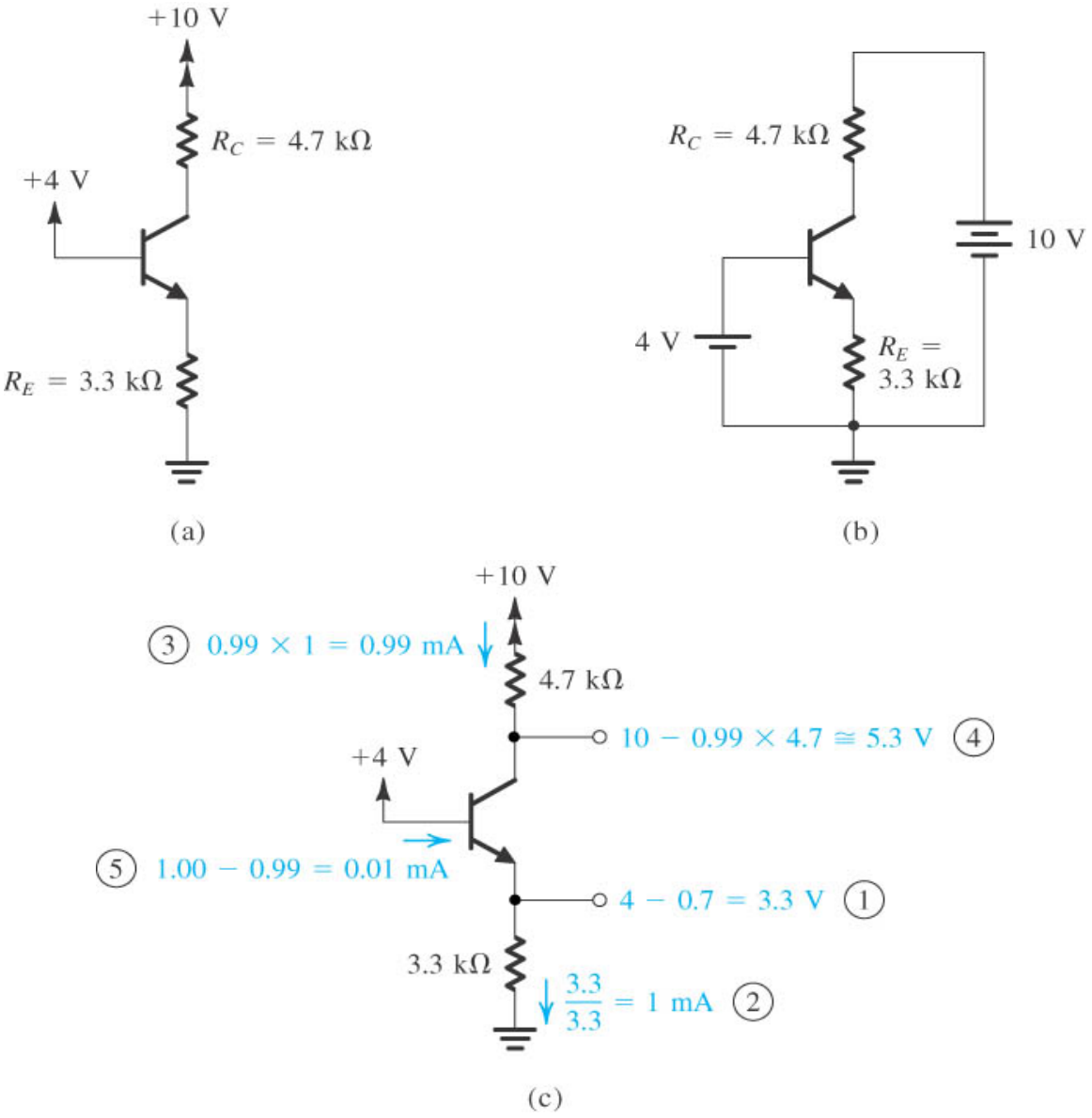


Figure 5.34 Analysis of the circuit for Example 5.4: **(a)** circuit; **(b)** circuit redrawn to remind the reader of the convention used in this book to show connections to the power supply; **(c)** analysis with the steps numbered.

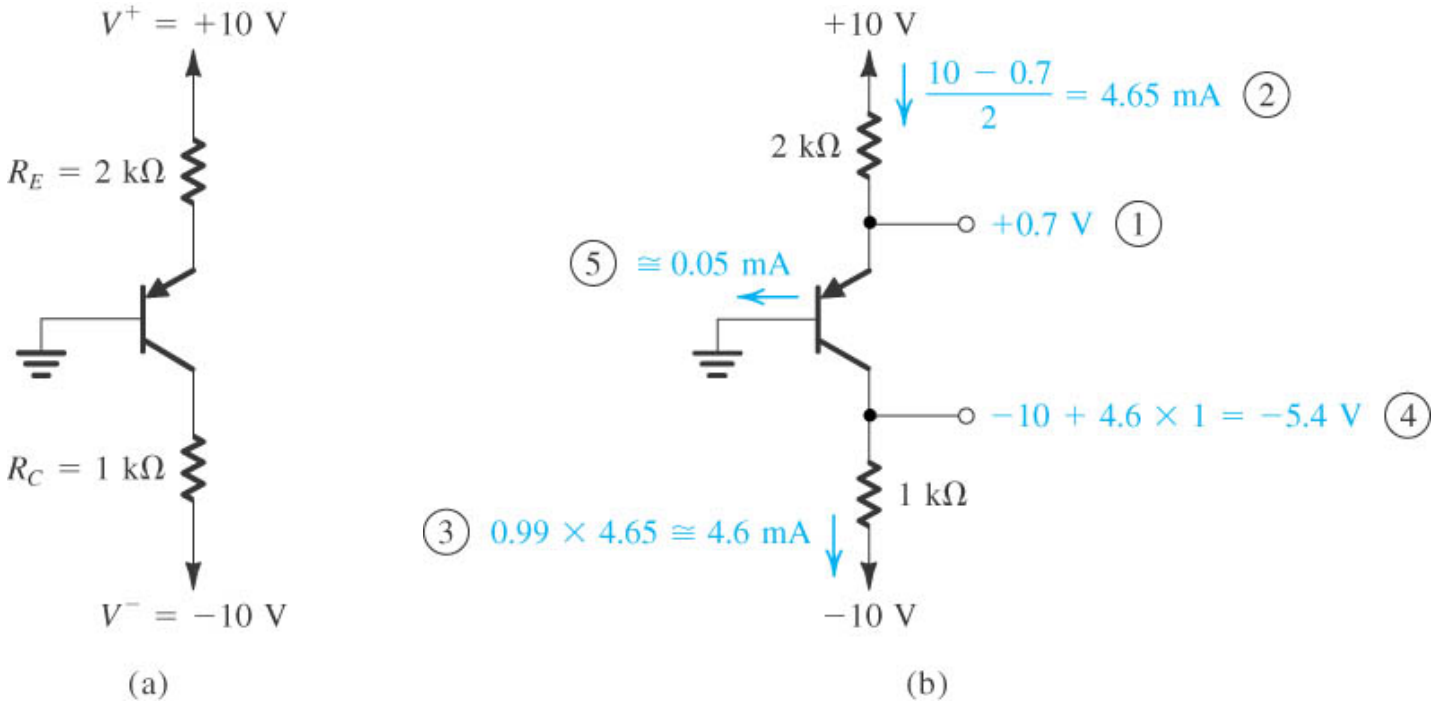


Figure 5.37 Example 5.7: **(a)** circuit; **(b)** analysis with the steps indicated by circled numbers.

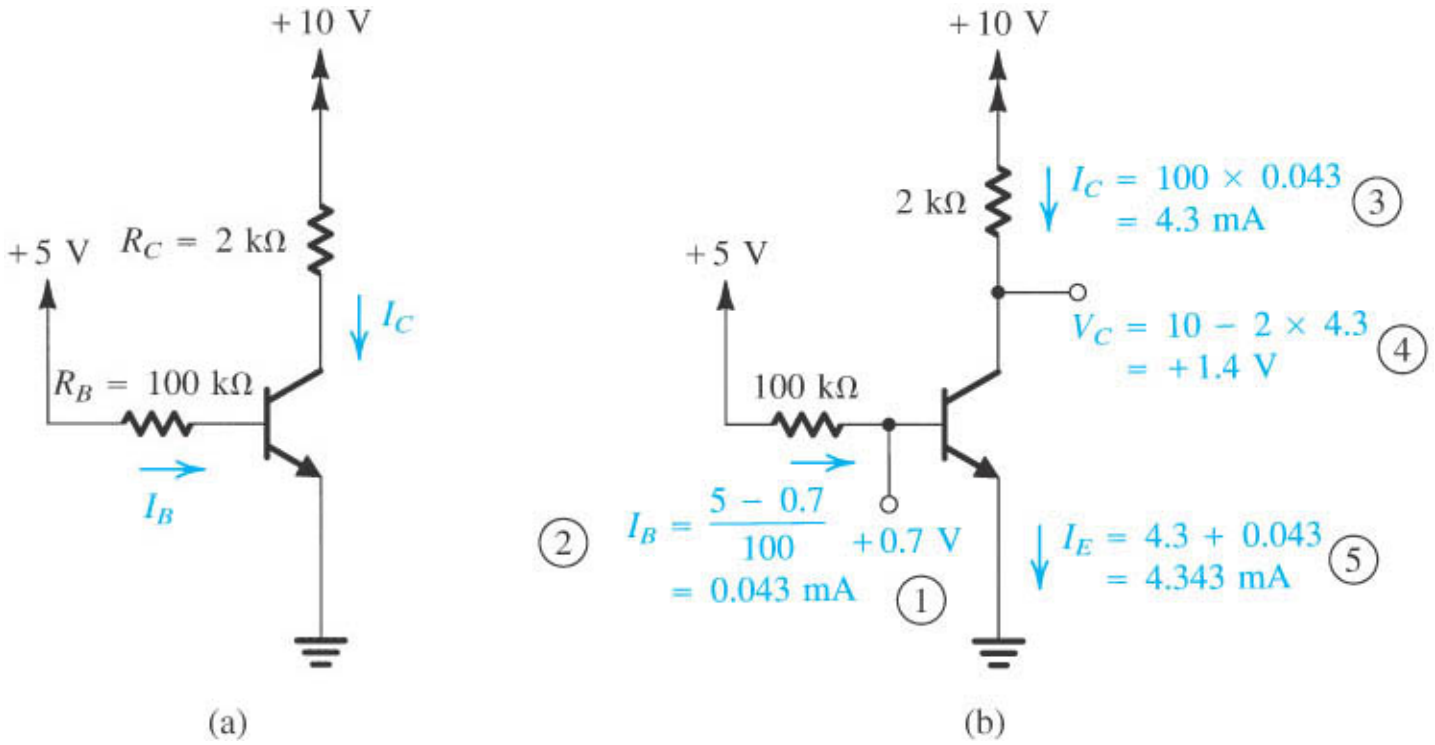


Figure 5.38 Example 5.8: **(a)** circuit; **(b)** analysis with the steps indicated by the circled numbers.

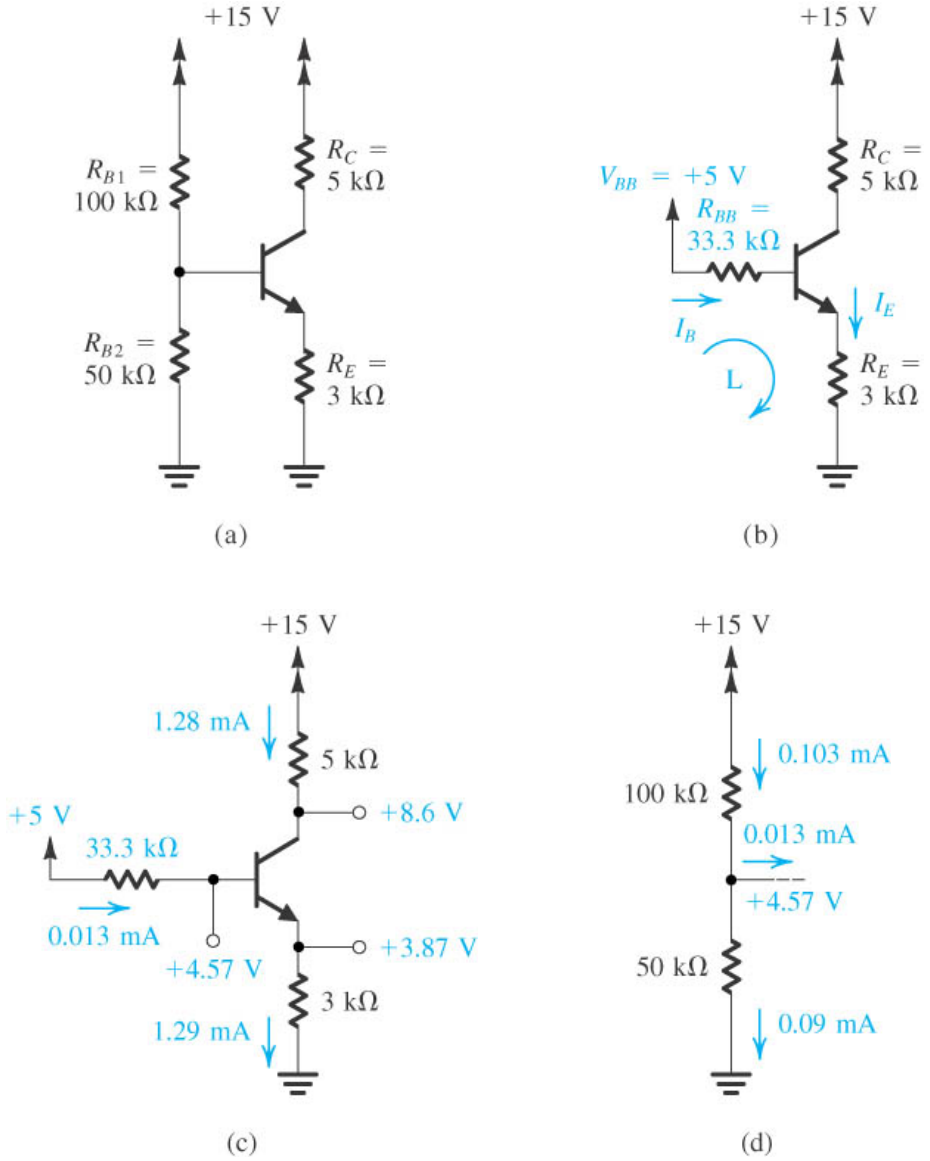


Figure 5.40 Circuits for Example 5.10.

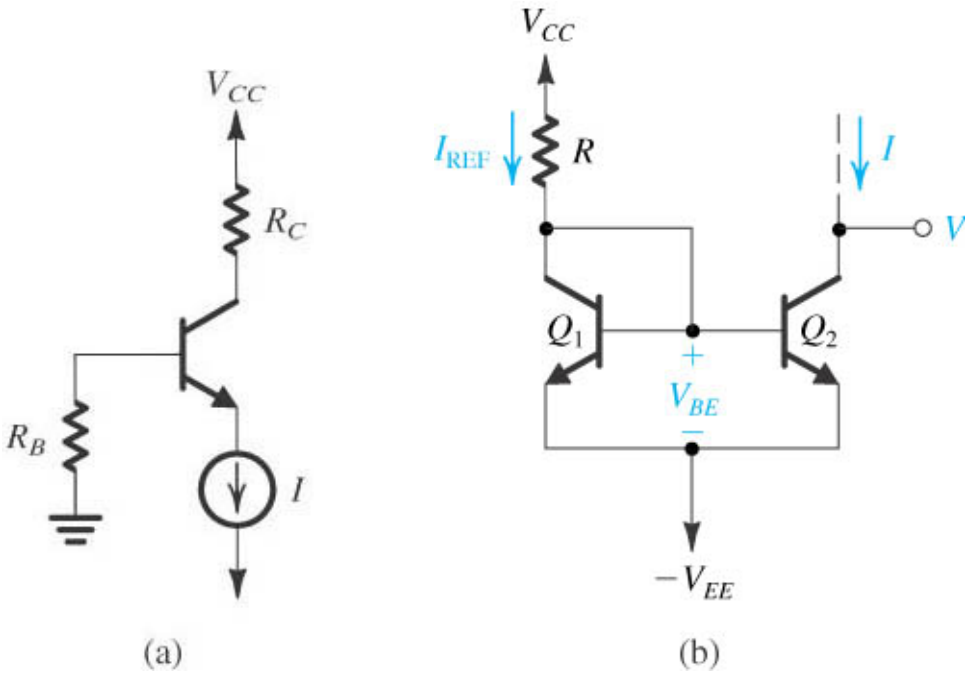


Figure 5.47 **(a)** A BJT biased using a constant-current source I. **(b)** Circuit for implementing the current source I.