

BJT Amplifier Equivalent Circuits (H.10)

20170126

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References

Based

[1] Floyd, Electronic Devices 7th ed

[2] Cook,

[2] en.wikipedia.org

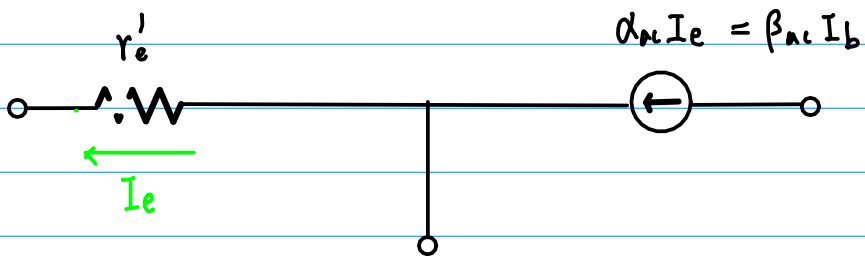
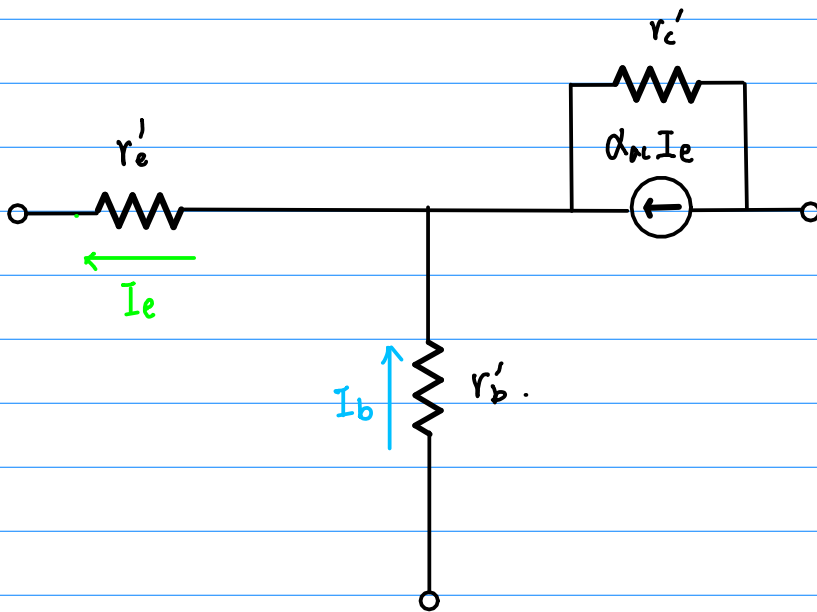
α_{ac} ac alpha (I_c / I_e)

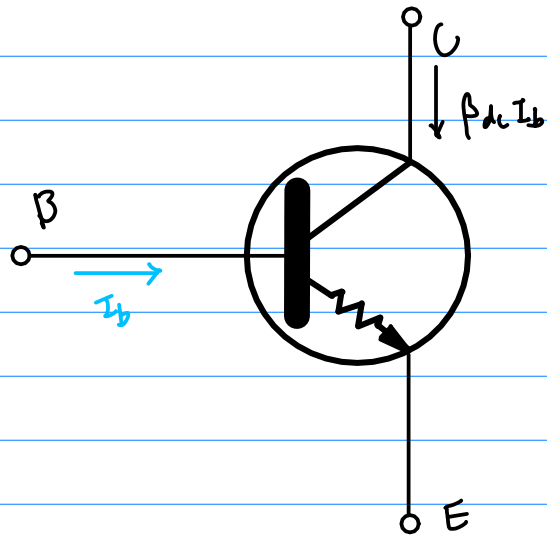
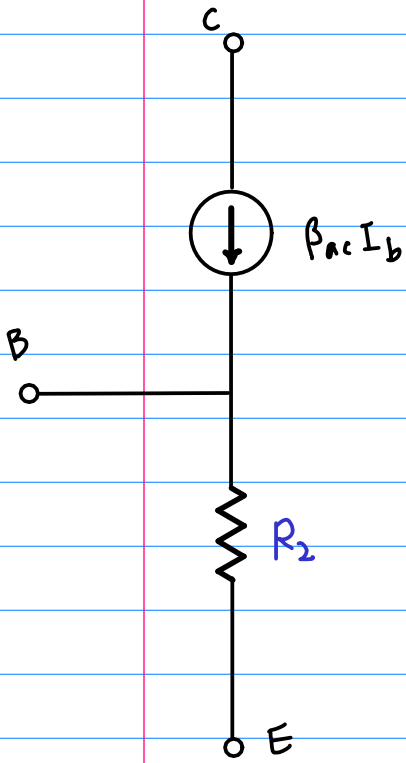
β_{ac} ac beta (I_c / I_b)

r_e' ac emitter resistance

r_b' ac base resistance

r_c' ac collector resistance





I_C	I_c	i_c
I_E	I_e	i_e
I_B	I_b	i_b
V_{CE}	V_{ce}	v_{ce}

$$\left(\frac{1}{\beta_{DC}} + R_C \right) I_C - V_{CC} - V_{BE}$$

$$I_C = \frac{V_{CC} - V_{BE}}{R_C + R_B / \beta_{DC}}$$







