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5-5. 1. $P_o = \frac{1}{2}\frac{U_{om}^2}{R_L} = \frac{(10\sqrt{2})^2}{2\times 4} = 25W$

$\eta = \frac{\pi}{4}\frac{U_{om}}{V_{cc}} = 74\%$

$P_T = \frac{1}{R_L}\left(\frac{V_{cc}U_{om}}{\pi} - \frac{U_{om}^2}{4}\right) = 4.7W$

2. $I_{cm} > I_{om} = \frac{V_{cc}}{R_L} = 3.75A$

$P_{cm} > 0.2(P_o)_m = 0.2\frac{V_{cc}^2}{2R_L} = 5.625W$

$U_{CEO(BR)} > 2V_{cc} = 30V$

5-10. 1. 5V 调节 R_1，使 $U_{CE1} = U_{CE2} = 5V$

2. $(P_o)_m = \frac{(\frac{1}{2}V_{cc} - U_{CES})^2}{2R_L} = 0.5W$

$\eta = \frac{\pi}{4}\cdot\frac{\frac{1}{2}V_{cc} - U_{CES}}{\frac{1}{2}V_{cc}} = 62.8\%$

3. U_{B1}升高，U_{B2}下降

$(U_{CE})_{max} = 10V$

$I_C = \frac{\frac{V_{cc}}{2} - U_{BE}}{R_1}\beta = 179mV$

$P_C = (U_{CE})_{max} I_C = 1790mW > 200mW$

不安全