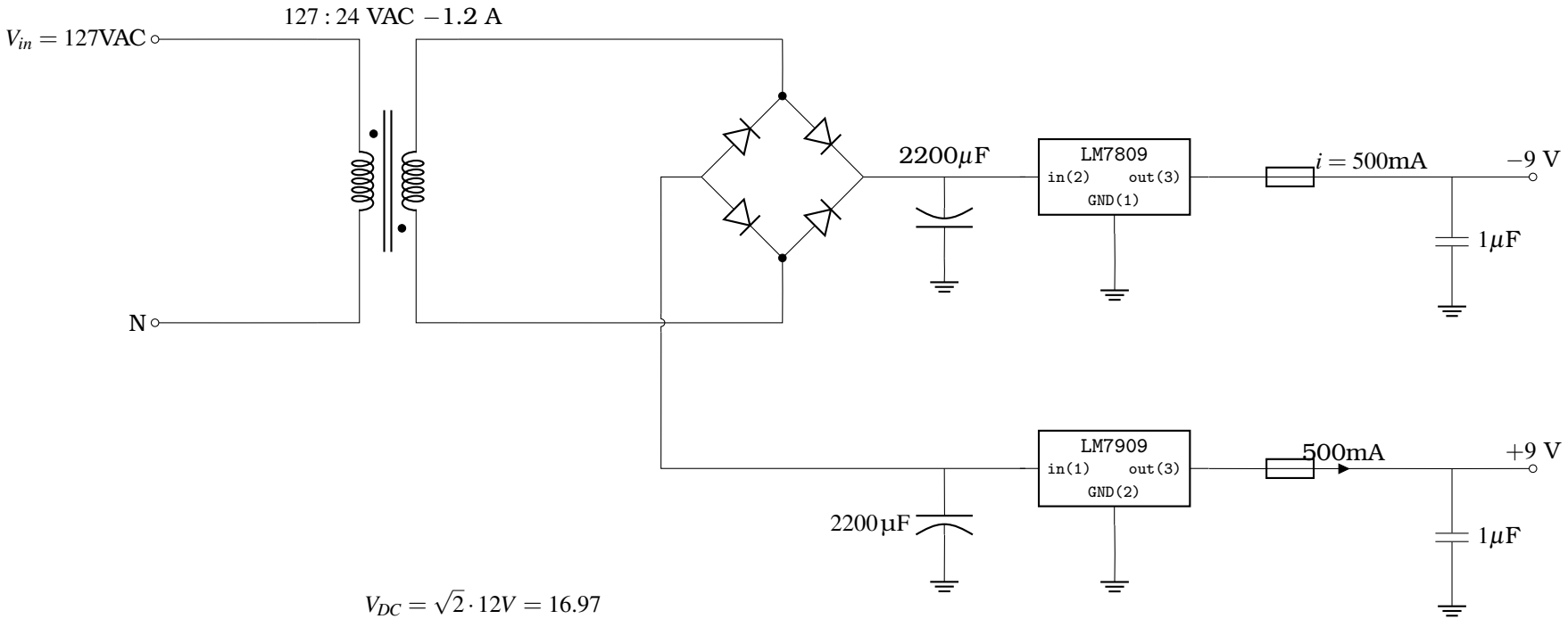
Bipolar Power-supply ± 9 V



$$V_{DC} = \sqrt{2} \cdot 12V = 16.97$$

$$\text{if } i_{max} = 500\text{mA} \Longrightarrow R_L = \frac{16.97V}{500mA} = 34\Omega$$

$$V_{r(pp)} = (0.1)(16.97V) = 1.697 \text{ V}$$

$$V_{r(pp)} = \frac{V_m}{2fR_LC_e} \Longrightarrow C_e = \frac{V_m}{2fR_LV_{r(pp)}} = \frac{16.97V}{2(60)(34)(1.697)} = 2450 \times 10^{-6} \approx 2200\mu\text{F}(commercial)$$