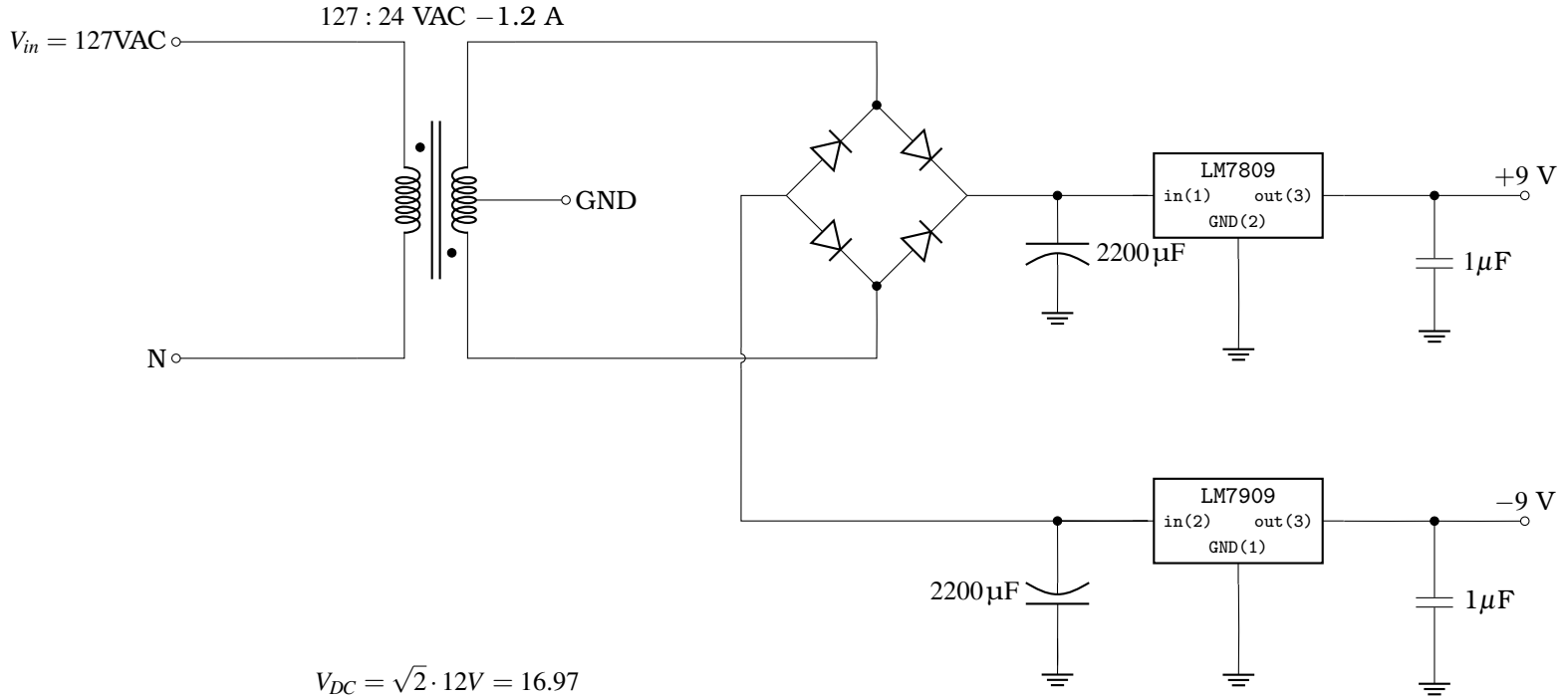


Bipolar Power-supply $\pm 9\text{ V}$



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

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

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

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