

Literature:

Diode: p 167-172 187, 211-216

Assignments:

3.1:

Assume the diode has a voltage drop of 0.7 V when only DC voltage V_Q is applied. For the circuits in Fig. 1 (a) and (b),

- What is the expression of $V_{out}(t)$?
- The input voltage change is $1/10 = 10\%$, what is the output change?

Hint: For Fig. 1(b), use the small-signal model.

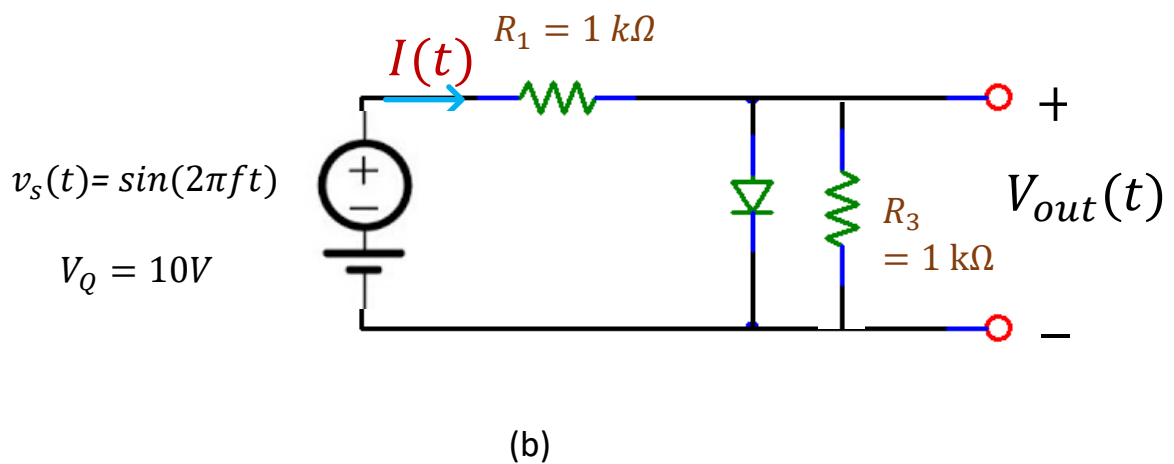
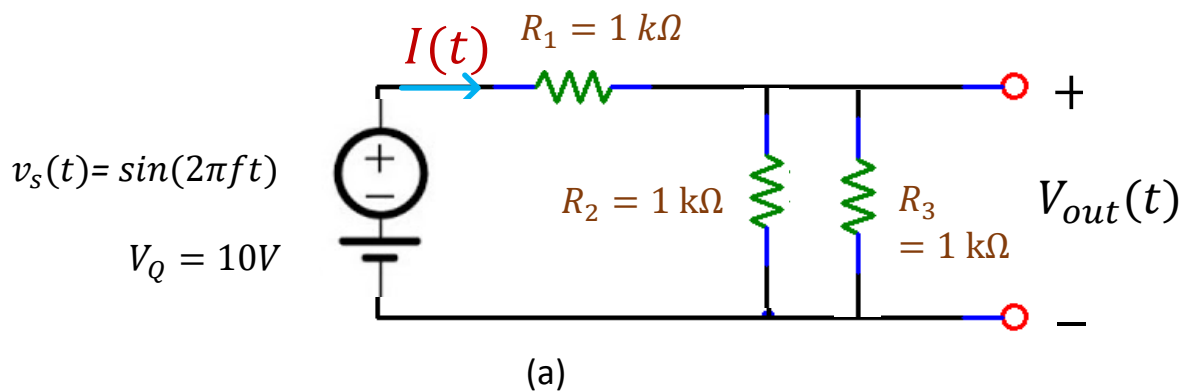


Fig. 1

3.2:

Run the full-wave rectifier LT spice simulation as illustrated in Fig. 2

- Plot the voltage curve at point: chan1 to GND;
- Plot the current curve through the Rtest.

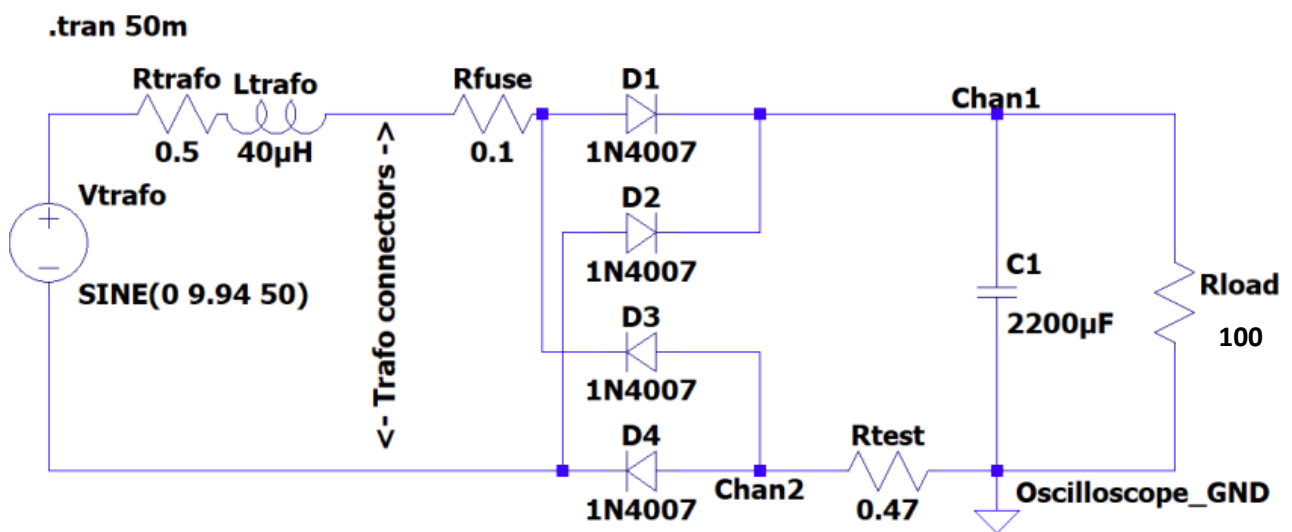


Fig. 2