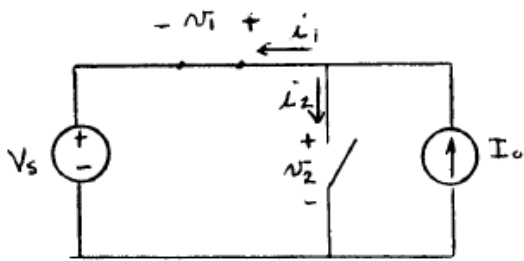


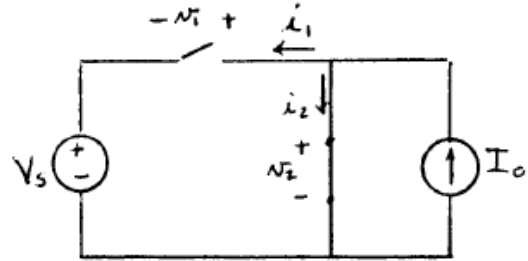
CHAPTER 1 SOLUTIONS

(1-1)



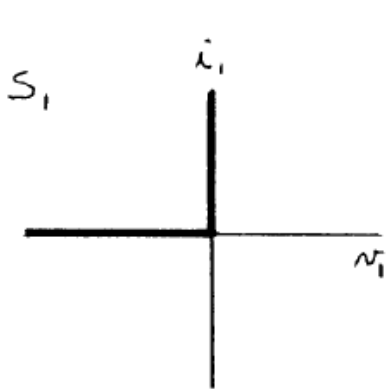
$$S_1: i_1 = I_o > 0, v_1 = 0$$

$$S_2: i_2 = 0, v_2 = V_s > 0$$

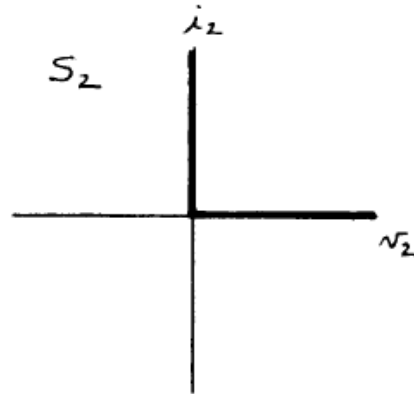


$$S_1: i_1 = 0, v_1 = -V_s < 0$$

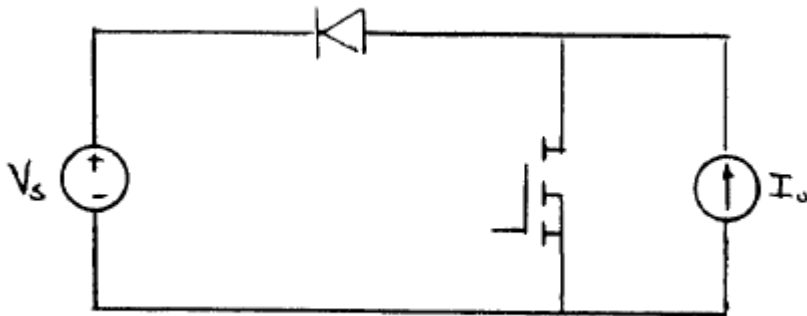
$$S_2: i_2 = I_o > 0, v_2 = 0$$



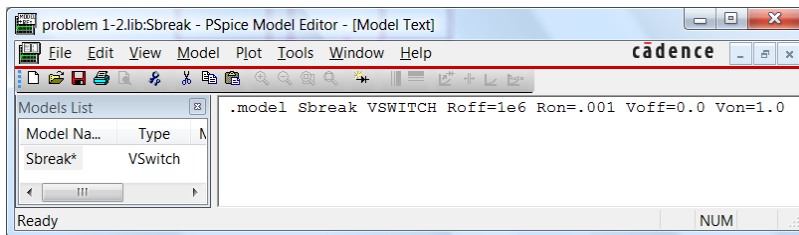
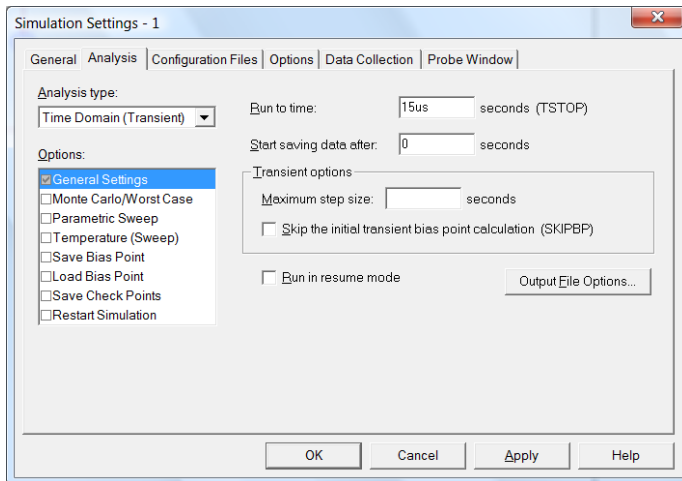
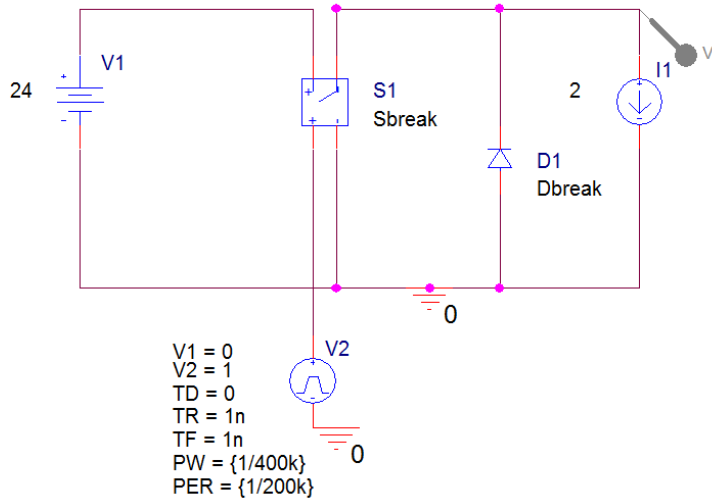
S1: Diode is sufficient

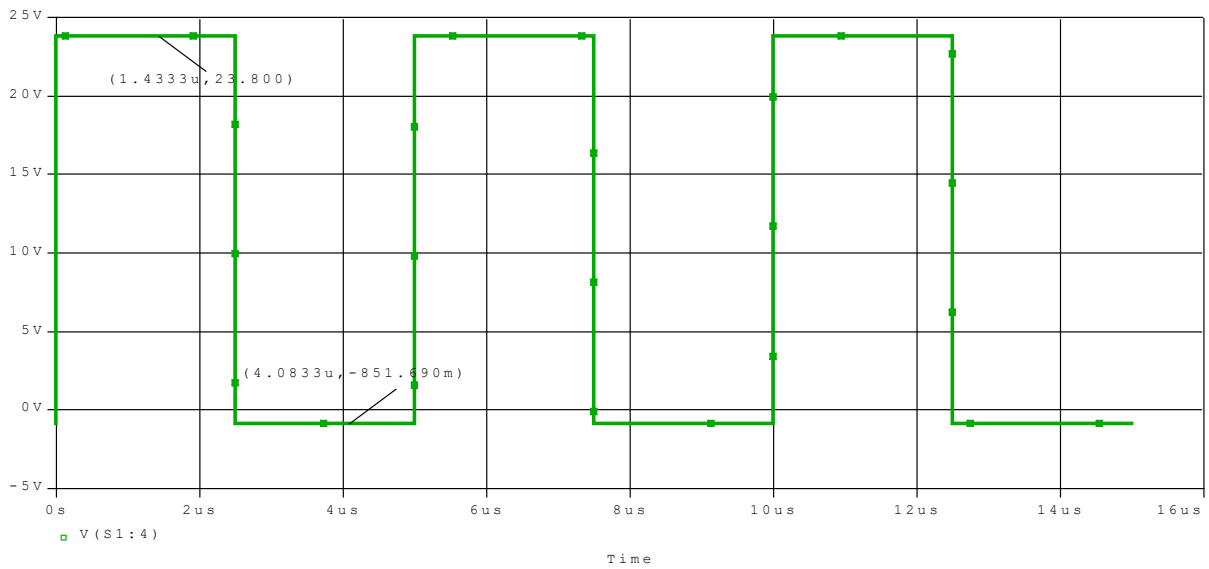
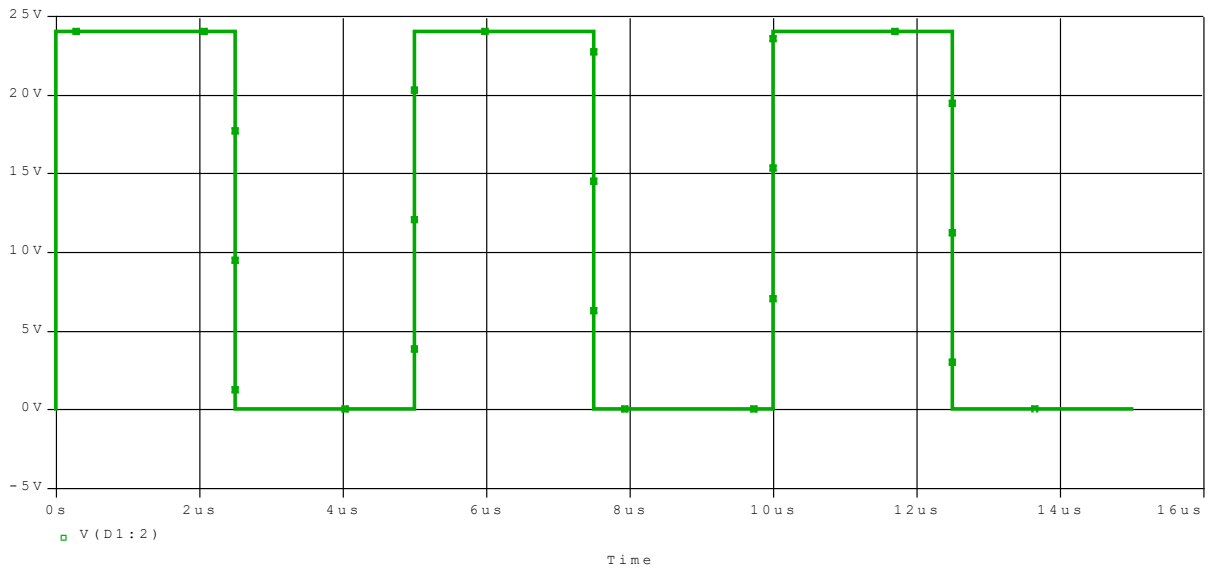


S2: Controlled device,
e.g., MOSFET



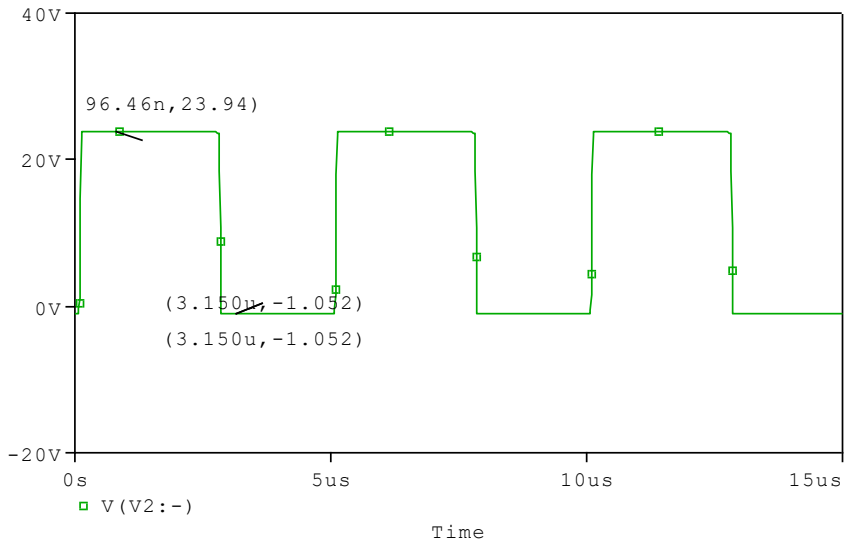
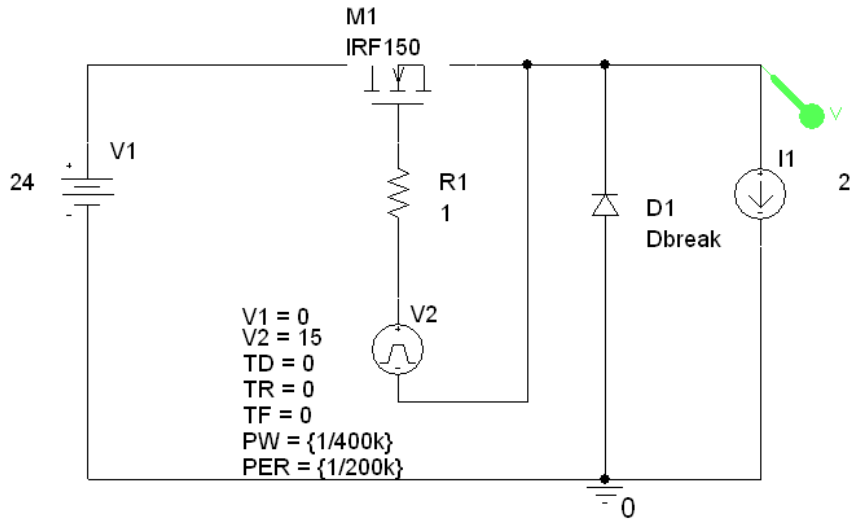
(1-2)





In part (b), the voltage across the current source is reduced from 24 V by the switch resistance and diode voltage drop.

(1-3)



(1-4)

