

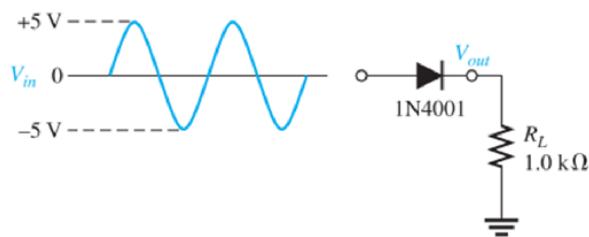
Electronic Engineering

Shee2: Diodes

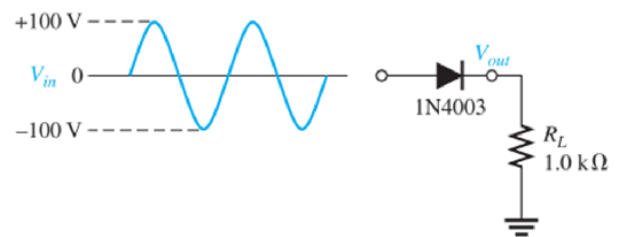
- 1- What is the average value of the half-wave rectified voltage in the below Figure?



- 2- Draw the output voltages of each rectifier for the indicated input voltages, as shown in the below Figure.

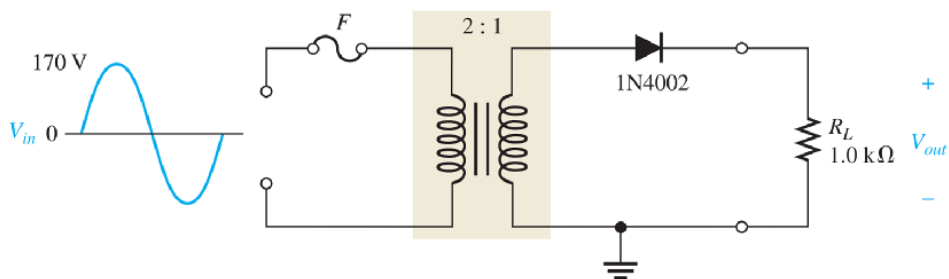


(a)

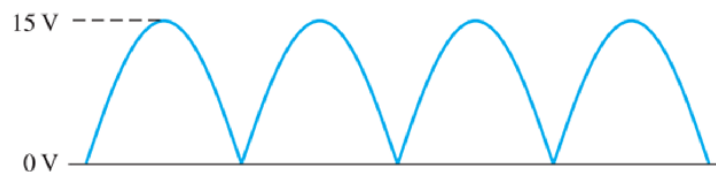


(b)

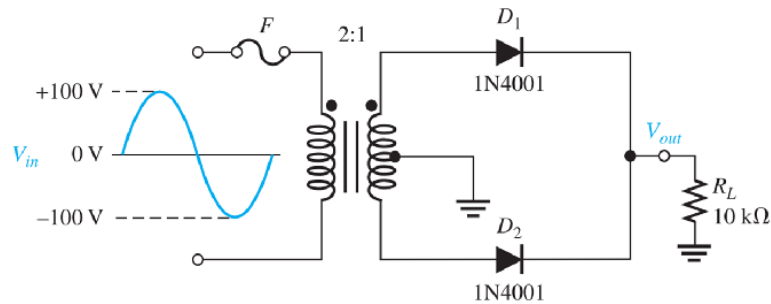
- 3- Determine the peak value of the output voltage for the below Figure if the turns ratio is 0.5.



- 4- Find the average value of the full-wave rectified voltage in the below Figure.



- 5- (a) Show the voltage waveforms across each half of the secondary winding and across R_L when a 100 V peak sine wave is applied to the primary winding in the below Figure.
- (b) What minimum PIV rating must the diodes have?



- 6- Determine the peak output voltage for the bridge rectifier in the below Figure. Assuming the practical model, what PIV rating is required for the diodes? The transformer is specified to have a 12 V rms secondary voltage for the standard 120 V across the primary.

