**Pre-Lab 8:**

**BJT Amplifier Configuration**

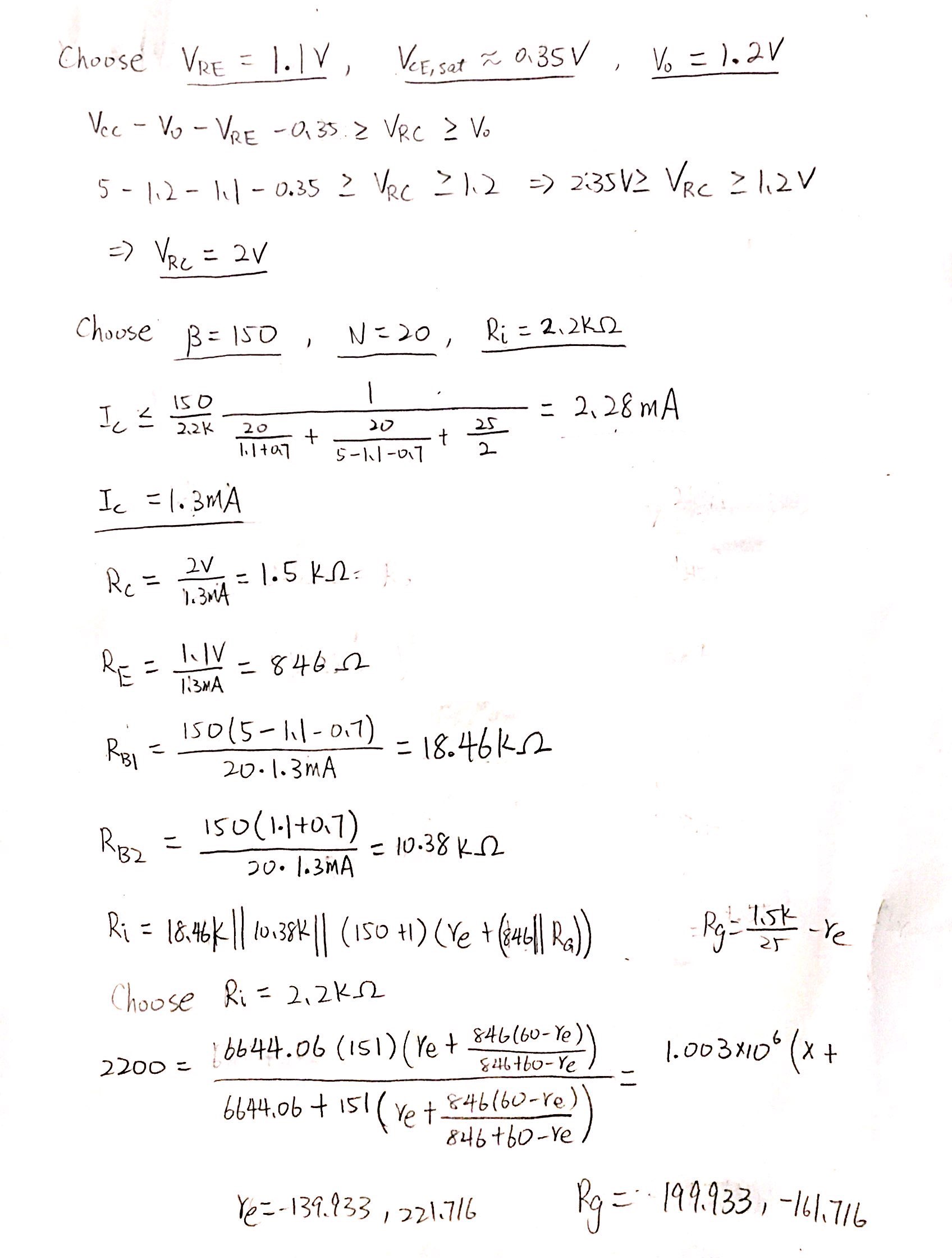
Name: Wan-Yu Liao

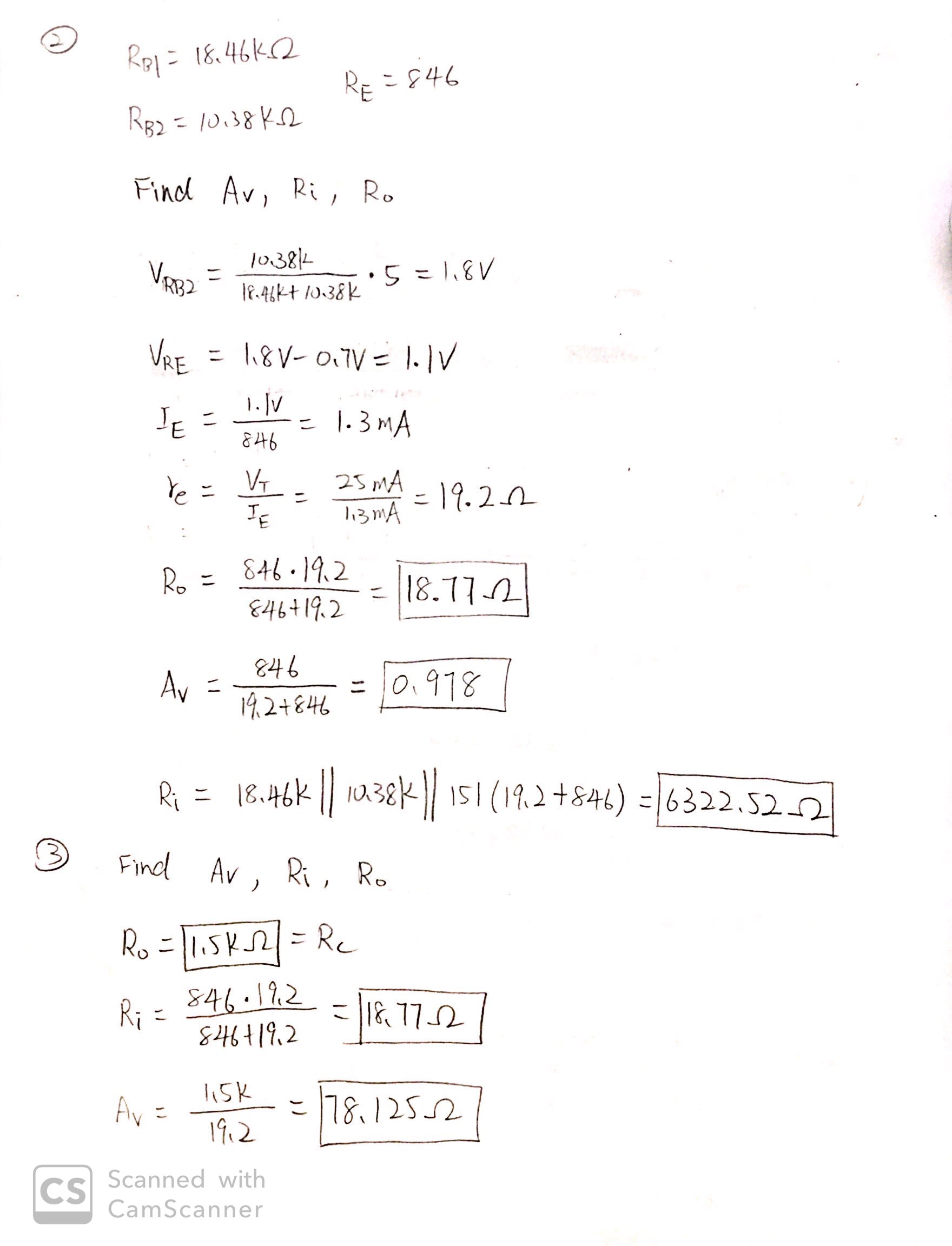
ECEN 325 Section 514

TA: Mandela

Date: October 25, 2019

**Calculation**





**Simulation**

**(1)**

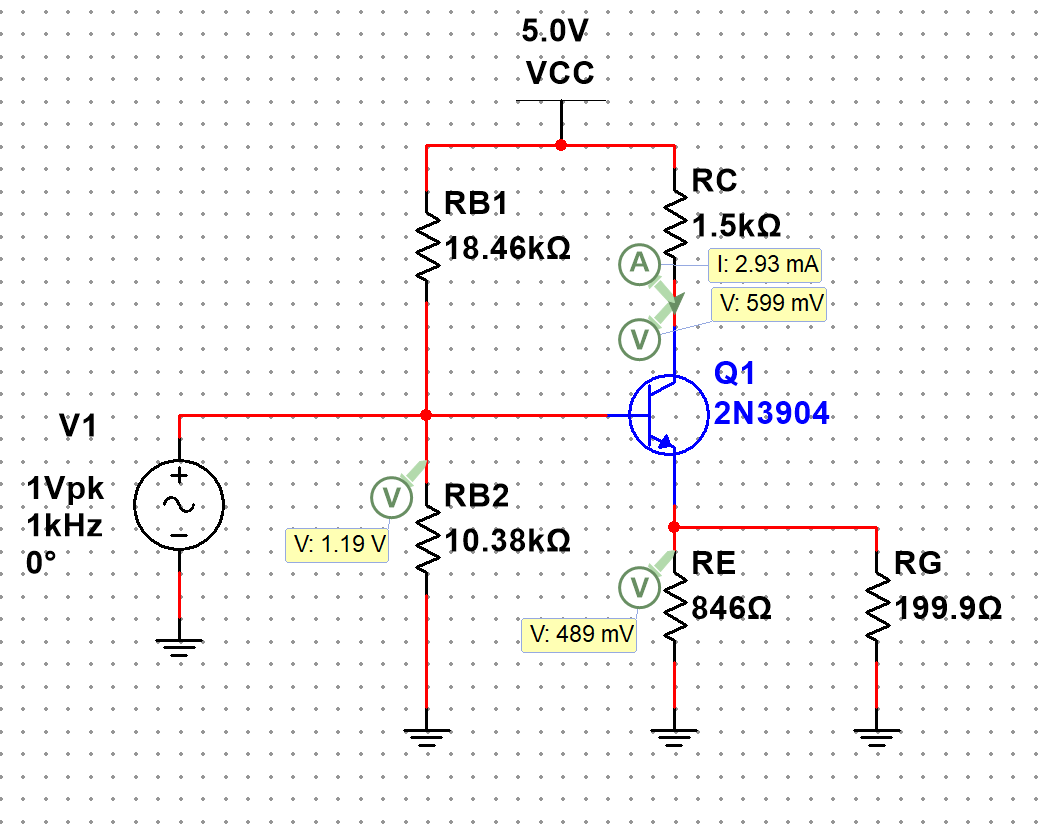
****

Figure 1: DC solution for Fig. 4(a)

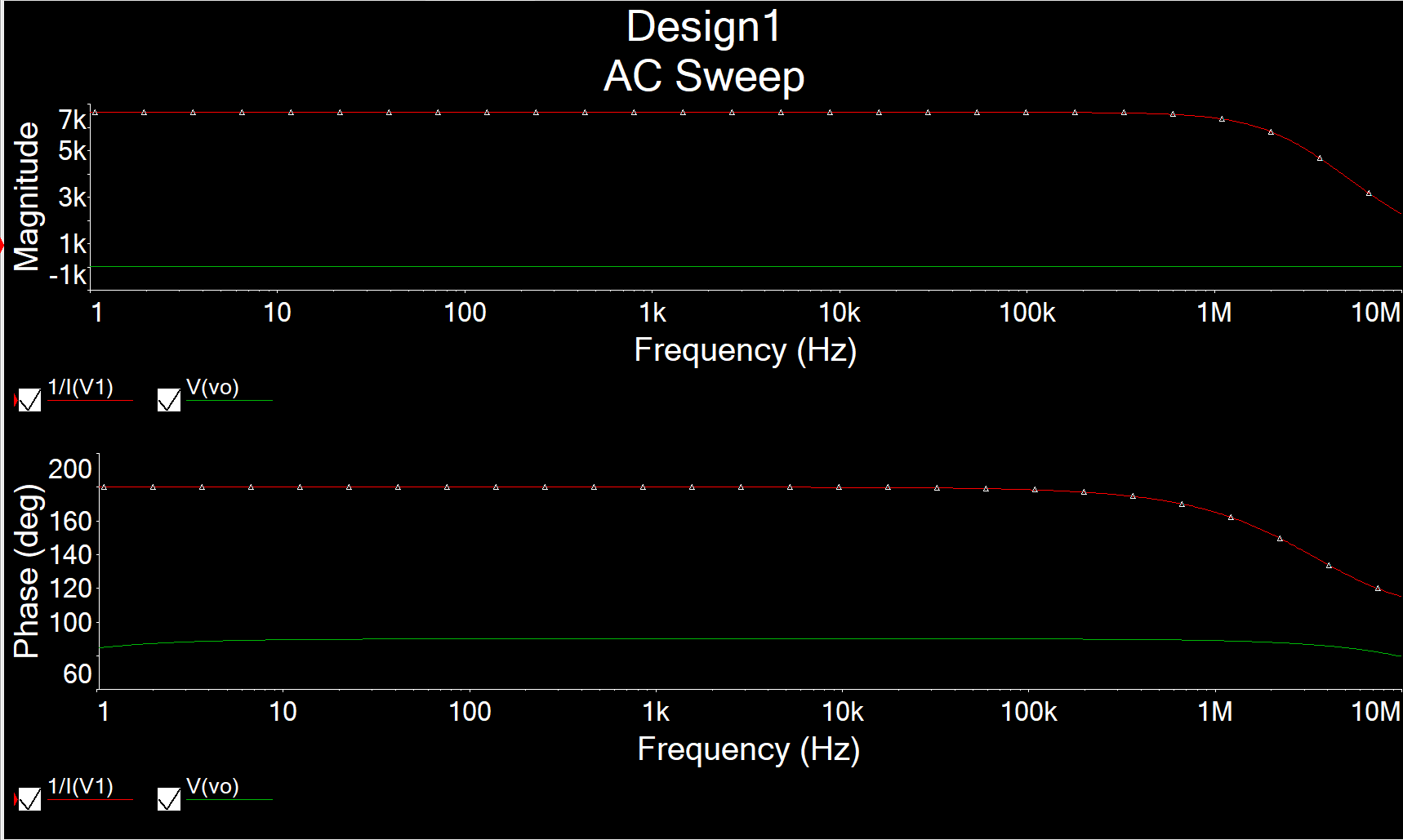


Figure 2: AC Simulation for Av, Ri and Ro for Fig. 4(a)

(Tried to find Av but couldn’t appear on the graph)

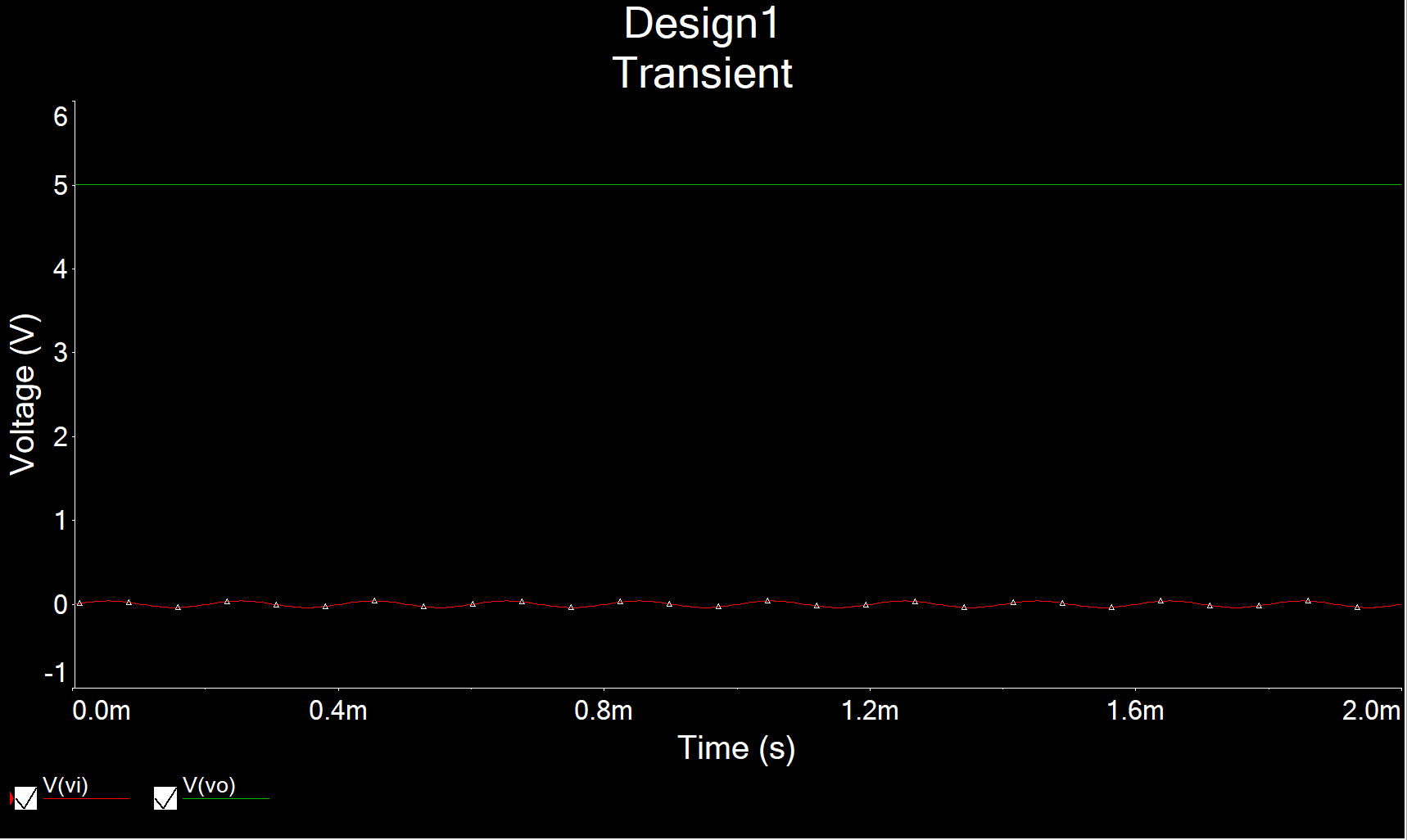


Figure 3: Time-domain Waveform for Fig. 4(a)

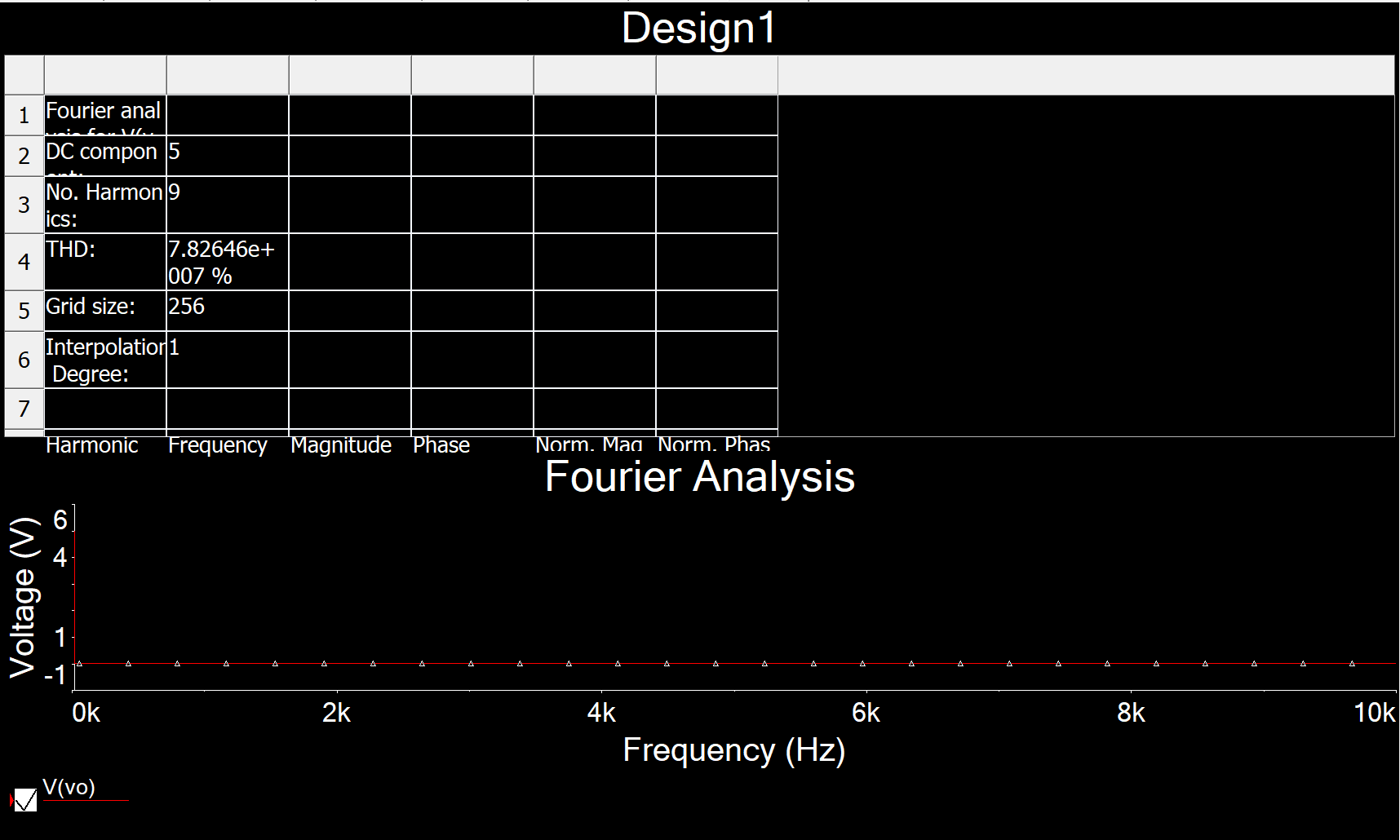


Figure 4: THD Waveform for Fig. 4(a)

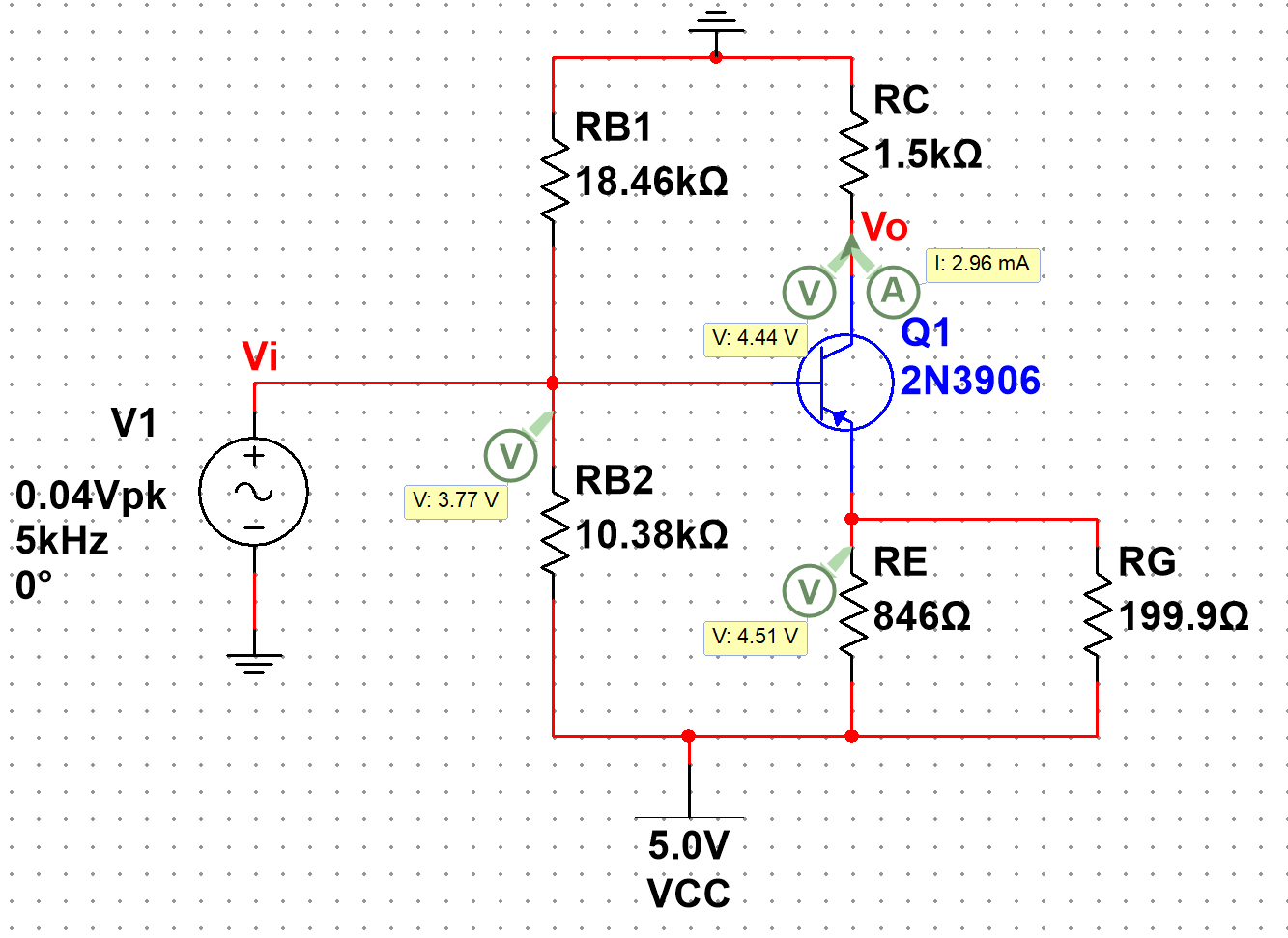


Figure 5: DC solution for Fig. 5(a)

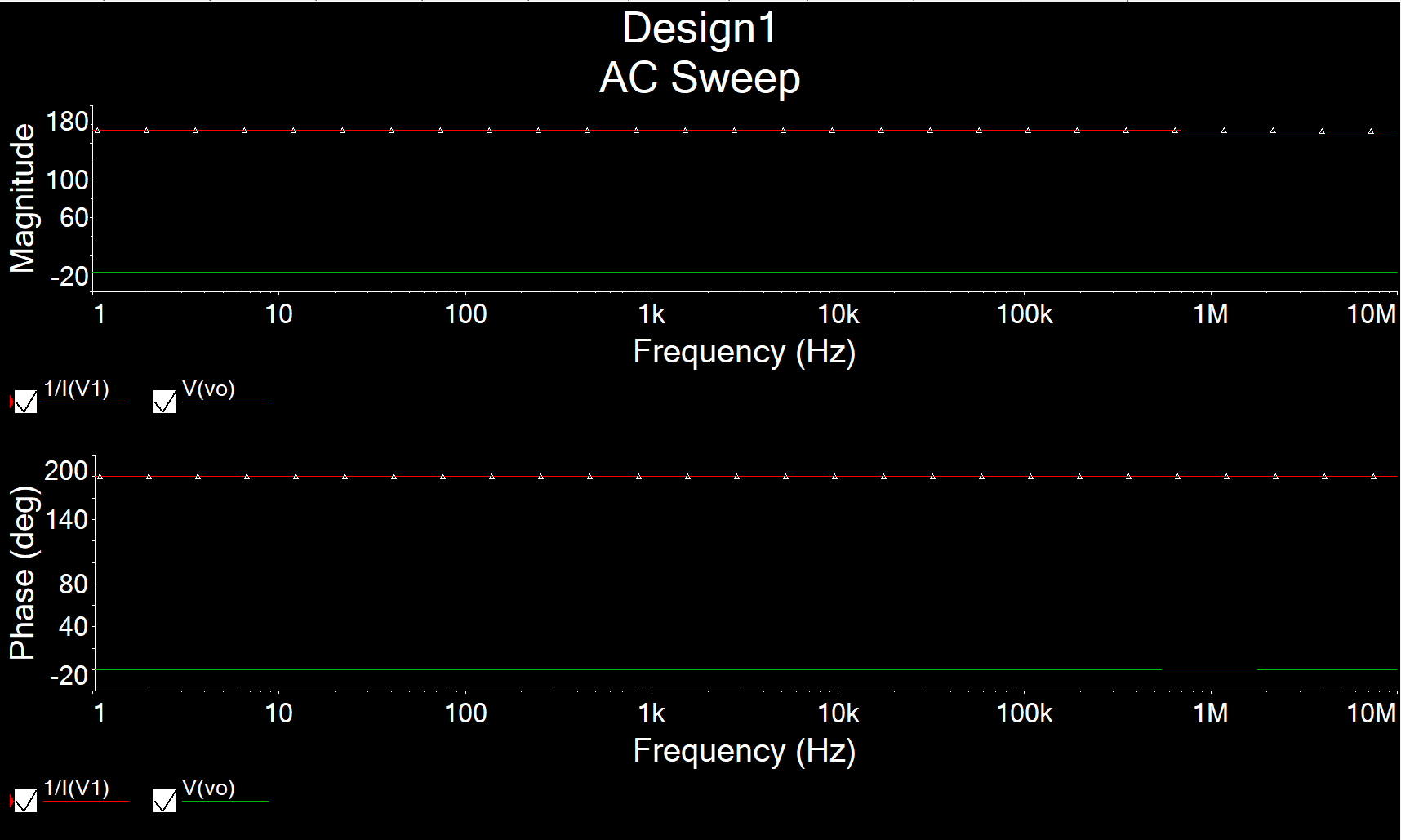


Figure 6: AC Simulation for Av, Ri and Ro for Fig. 5(a)

(Tried to find Av but couldn’t appear on the graph)

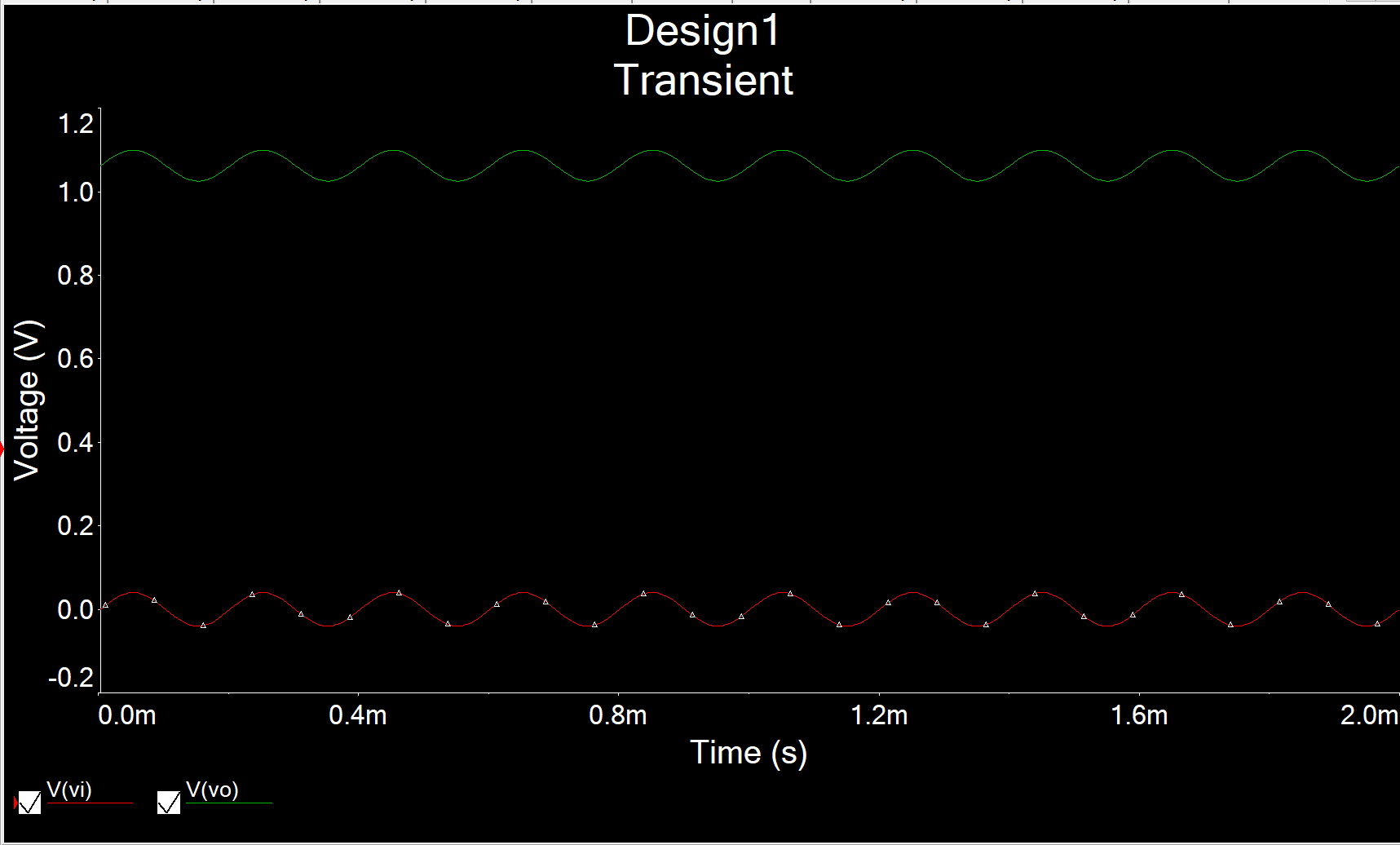


Figure 7: Time-domain Waveform for Fig. 5(a)

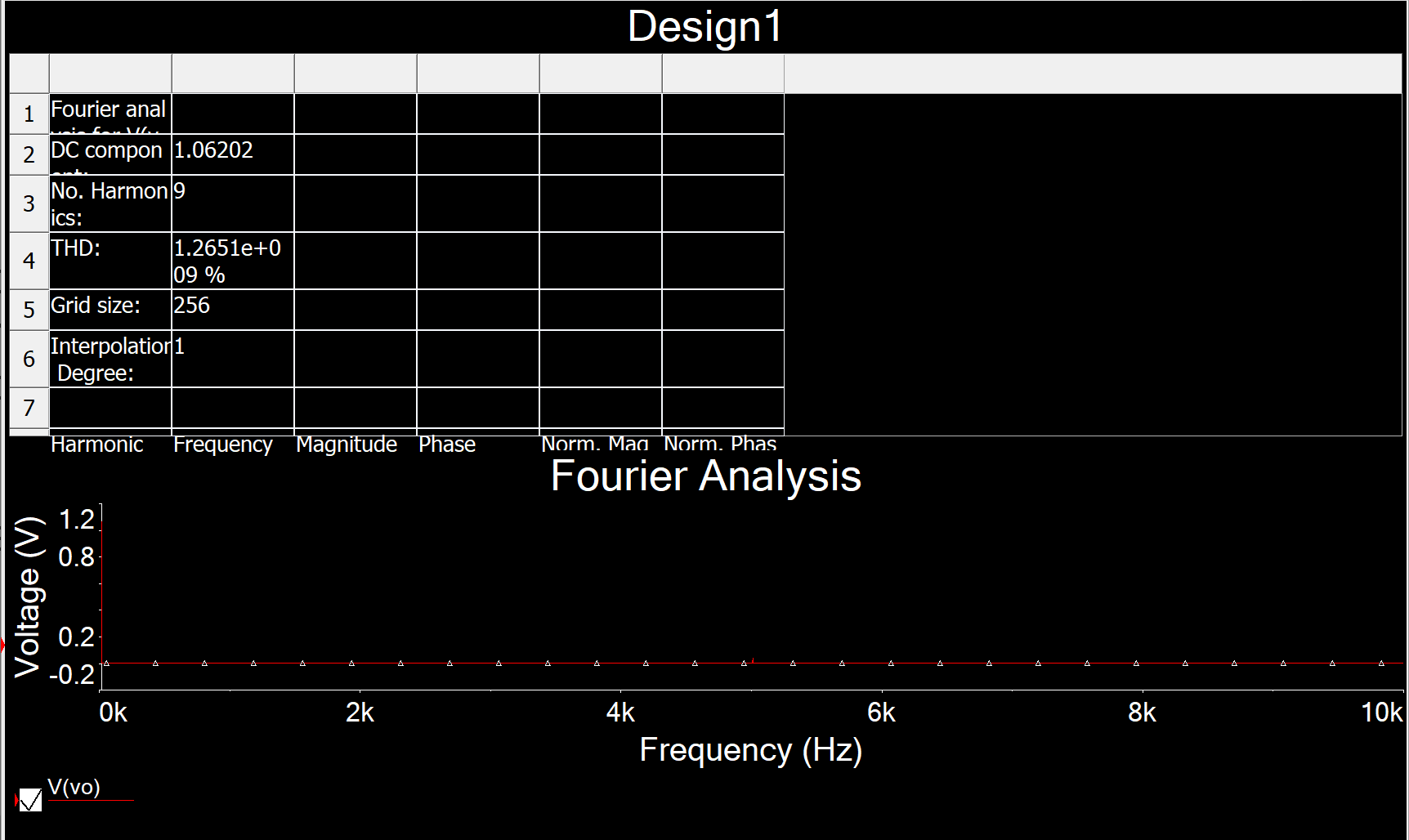


Figure 8: THD Waveform for Fig. 5(a)

**(2)**

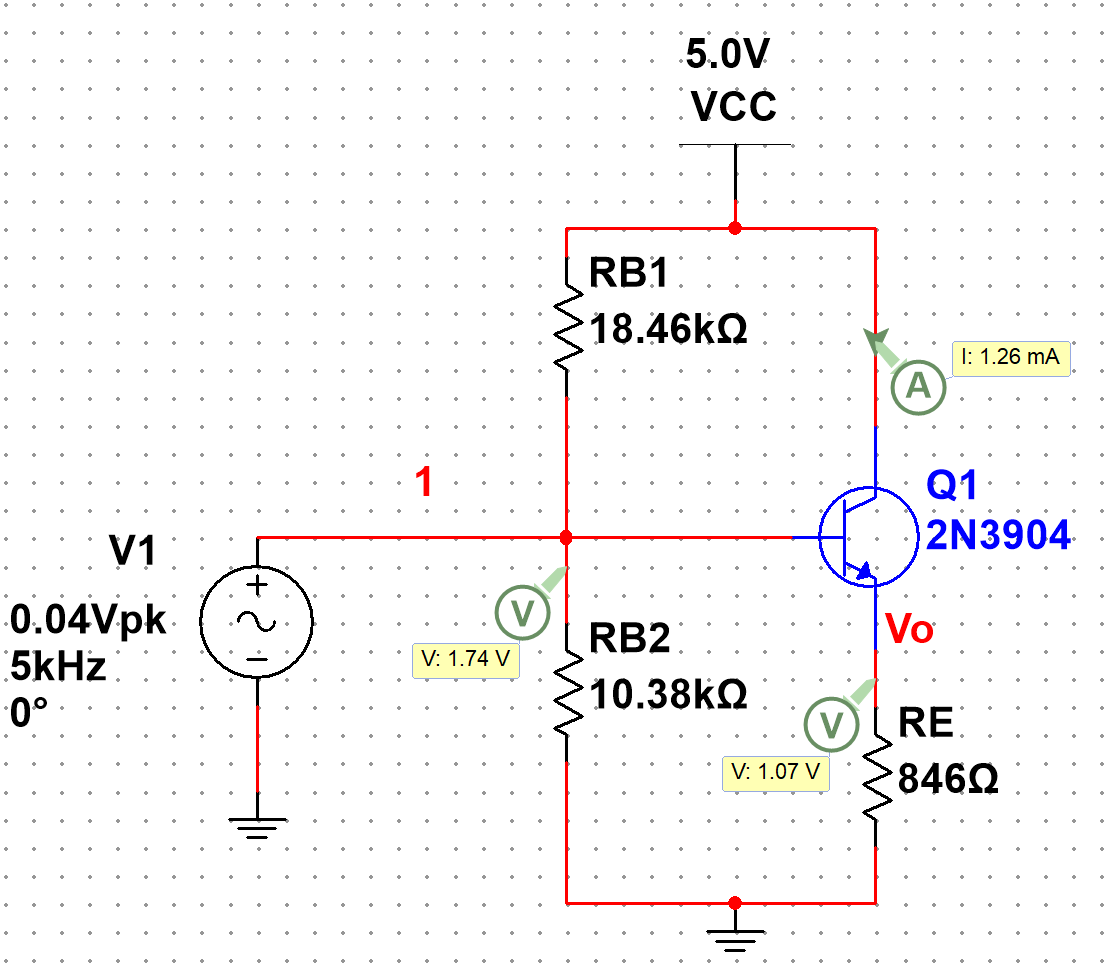


Figure 9: DC solution for Fig. 6(a)

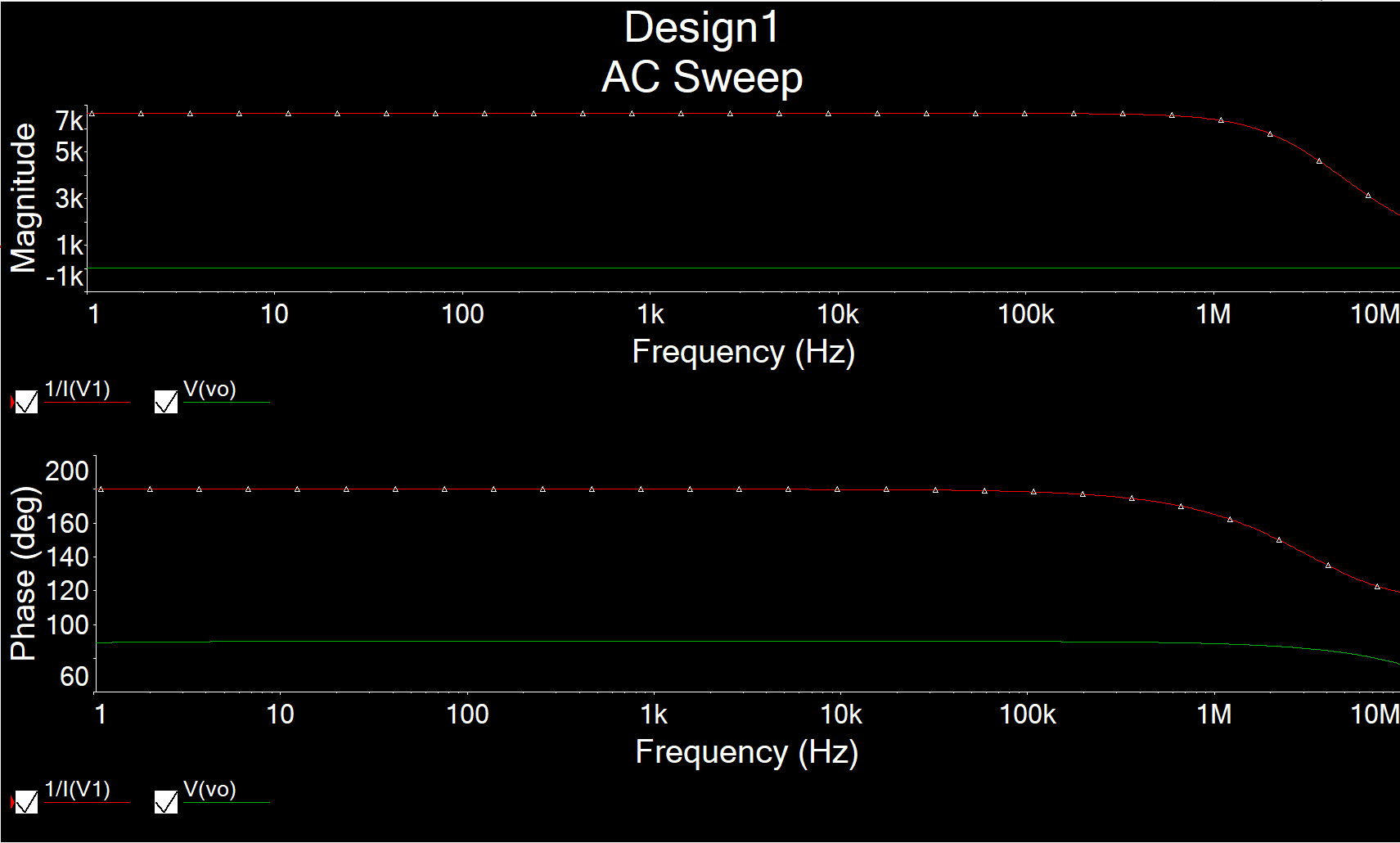


Figure 10: AC Simulation for Av, Ri and Ro for Fig. 6(a)

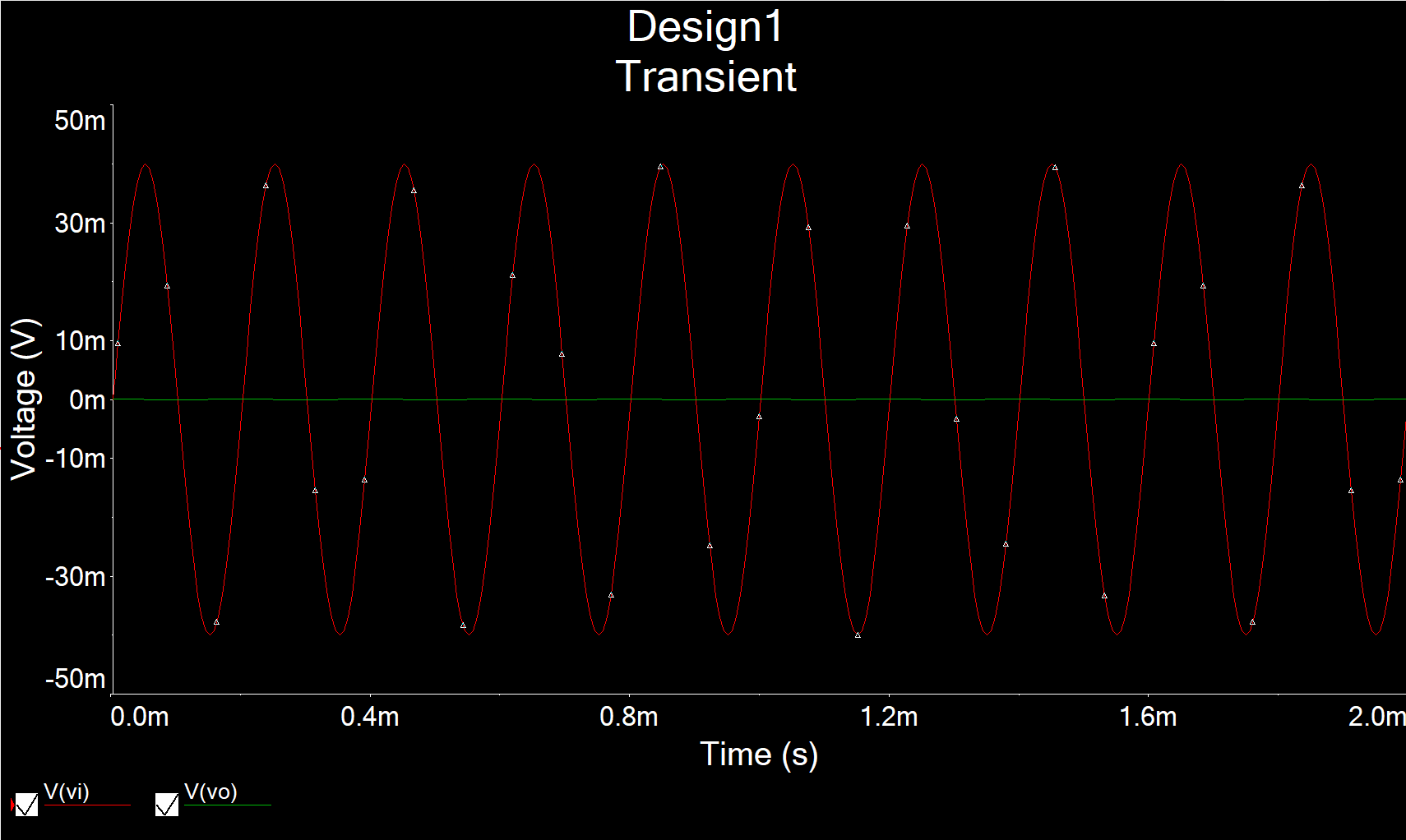


Figure 11: Time-domain Waveform for Fig. 6(a)

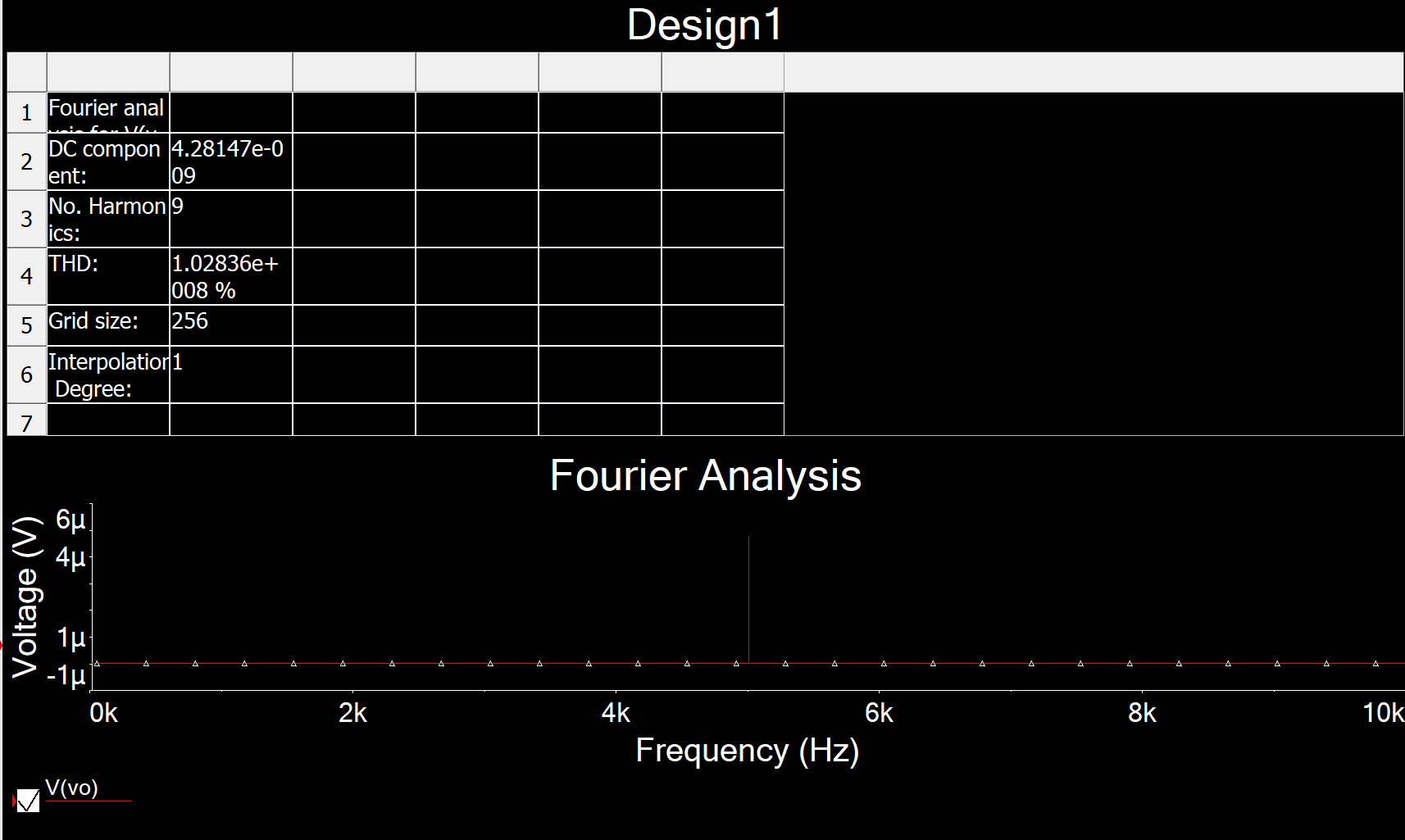


Figure 12: THD Waveform for Fig. 6(a)

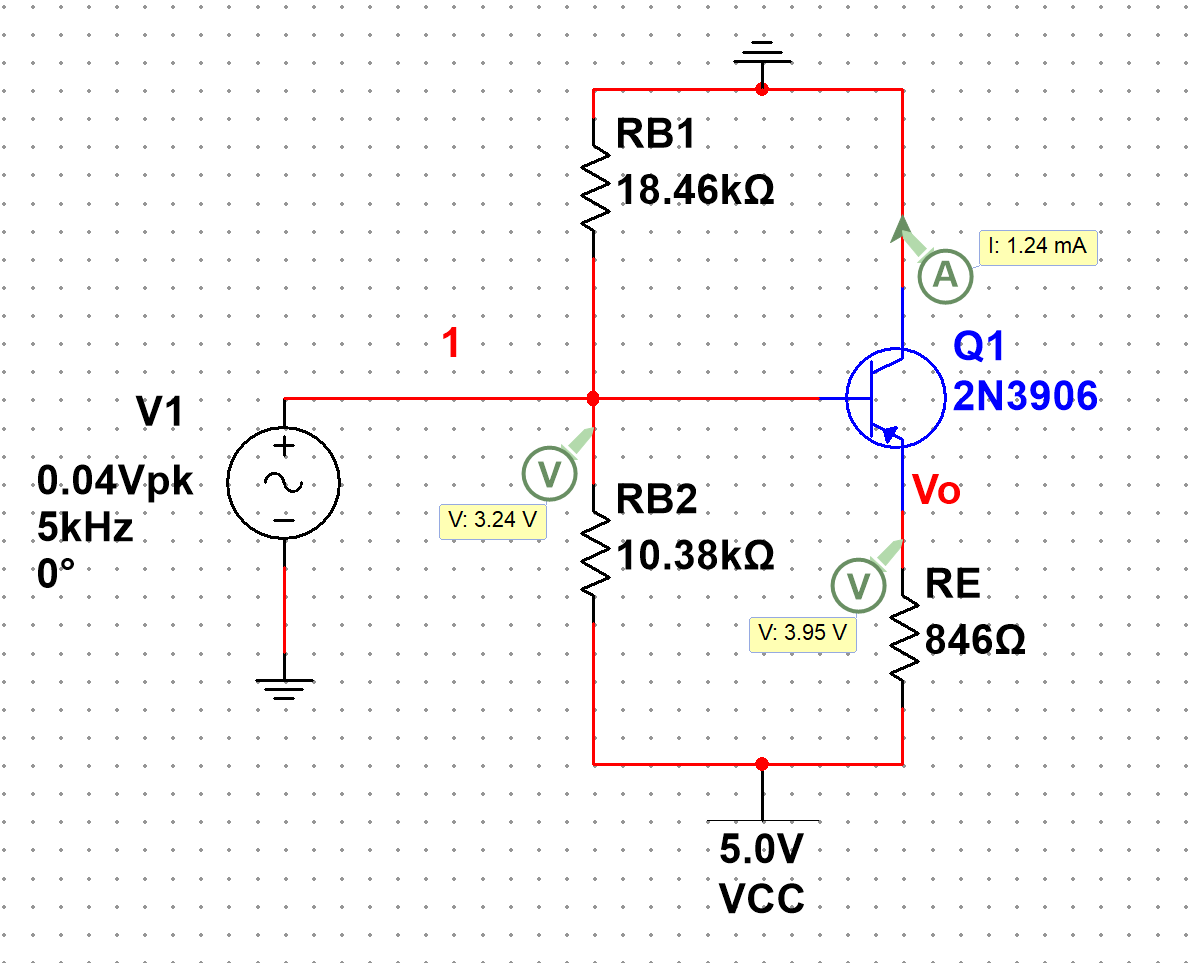


Figure 13: DC solution for Fig. 7(a)

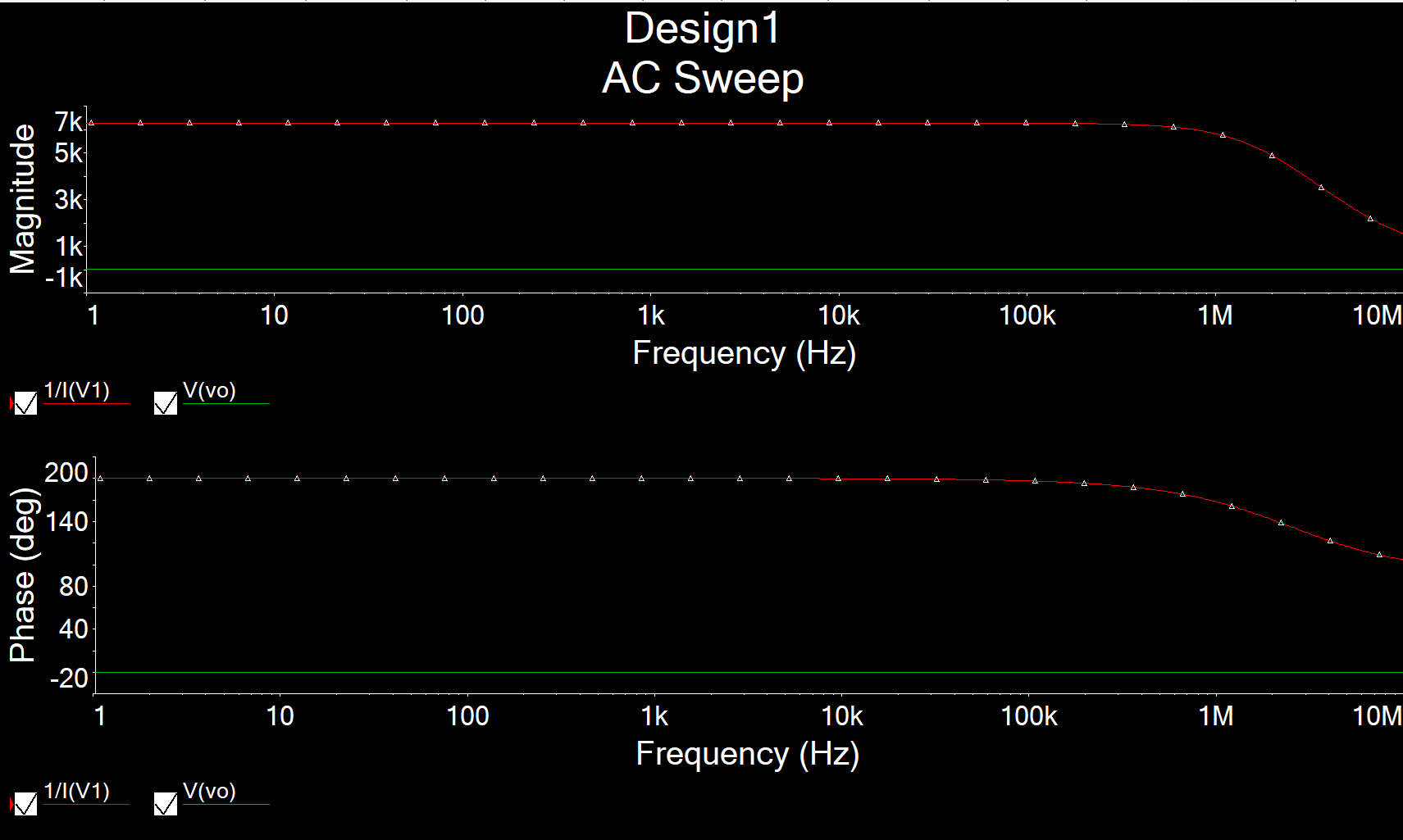


Figure 14: AC Simulation for Av, Ri and Ro for Fig. 7(a)

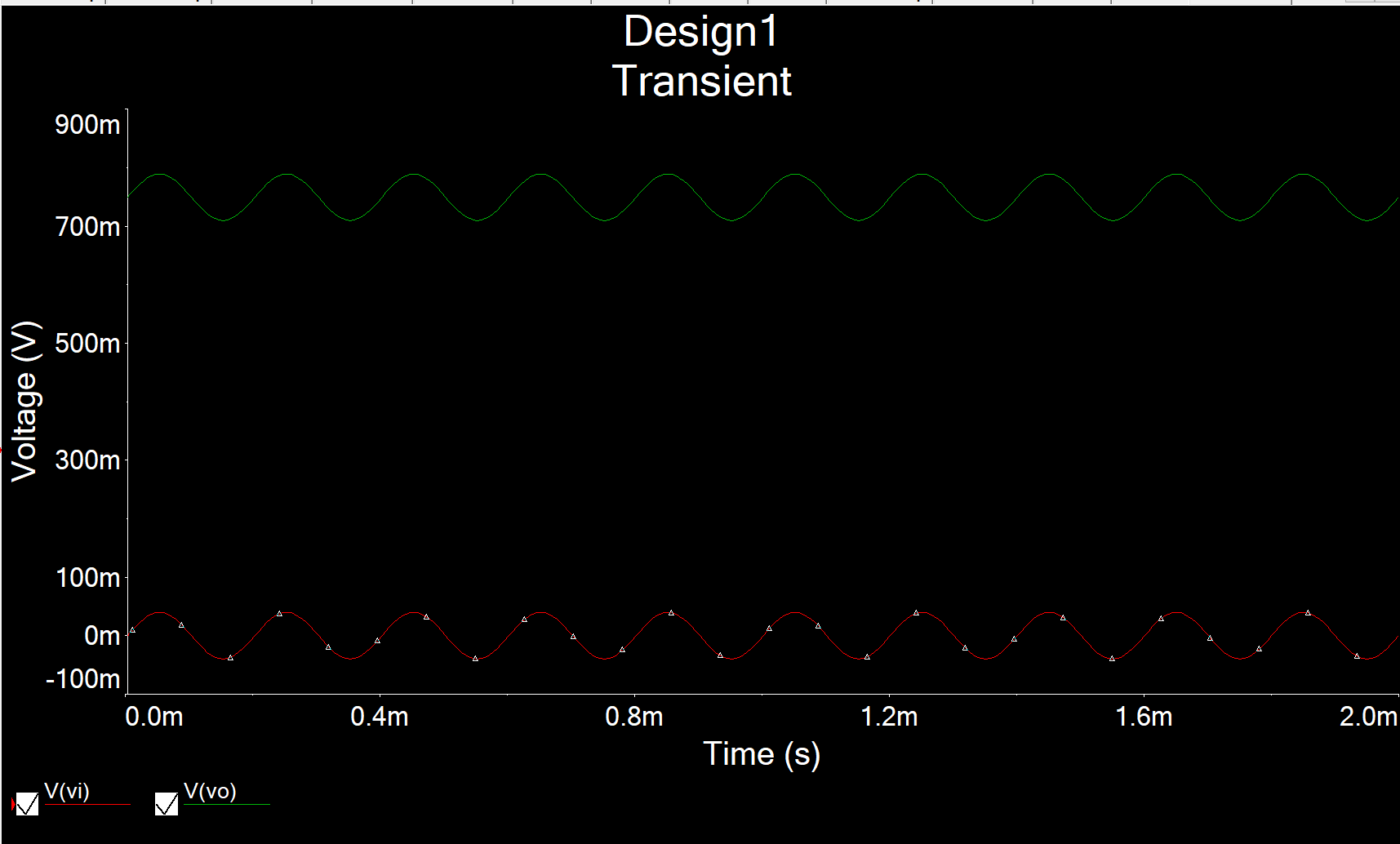


Figure 15: Time-domain Waveform for Fig. 7(a)

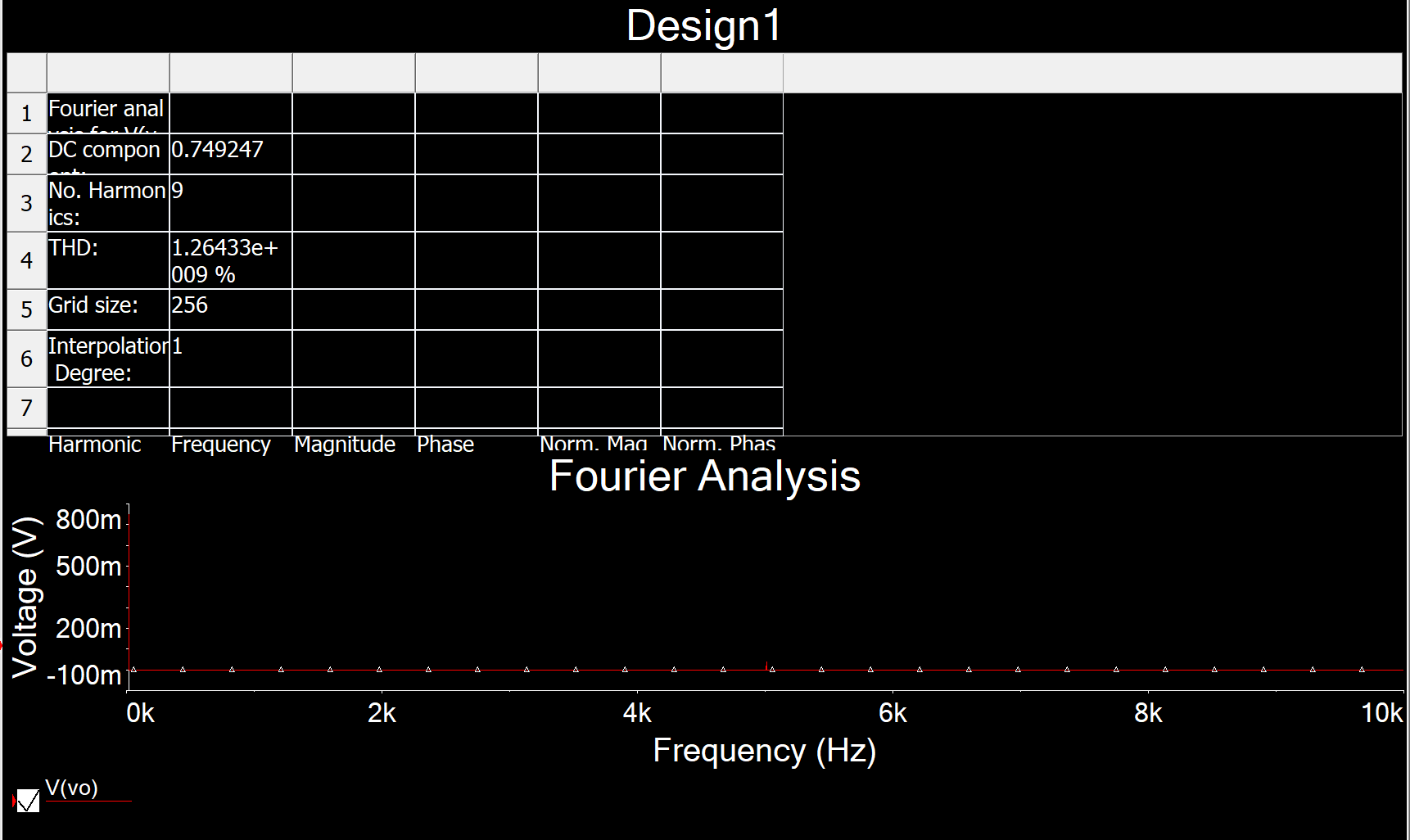


Figure 16: THD Waveform for Fig. 7(a)

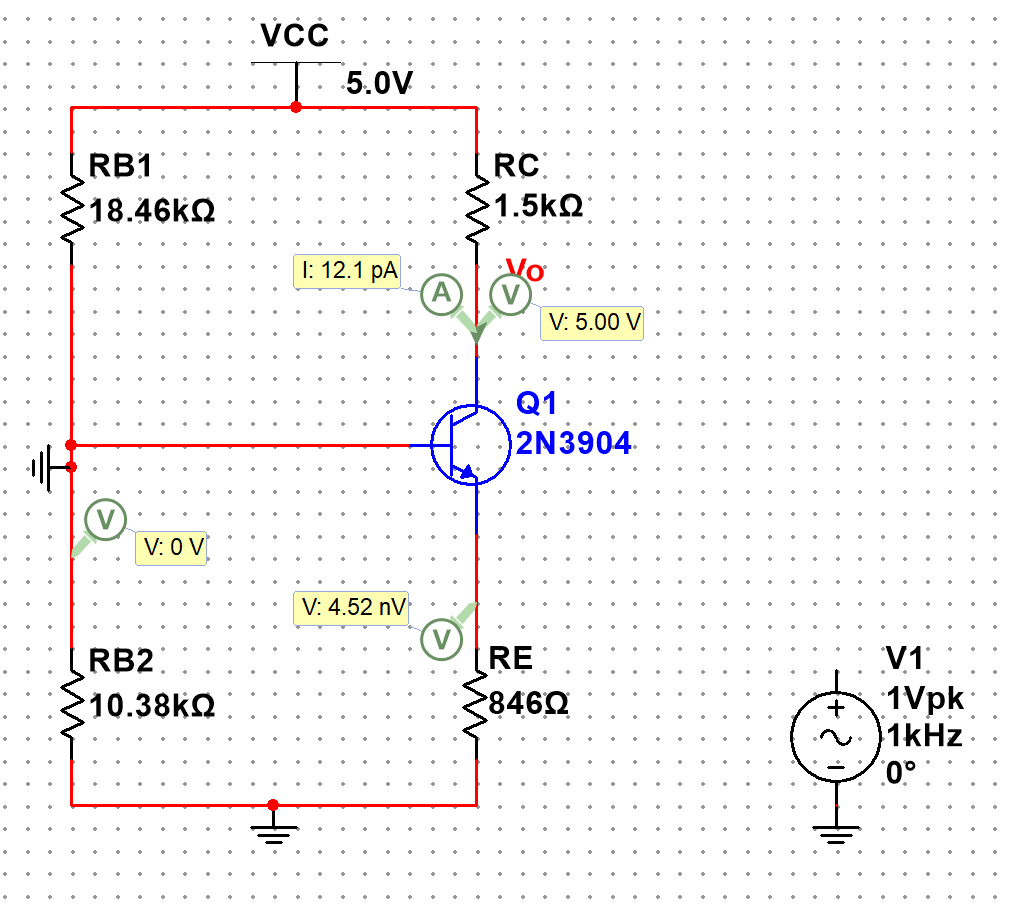


Figure 17: DC solution for Fig. 8(a)

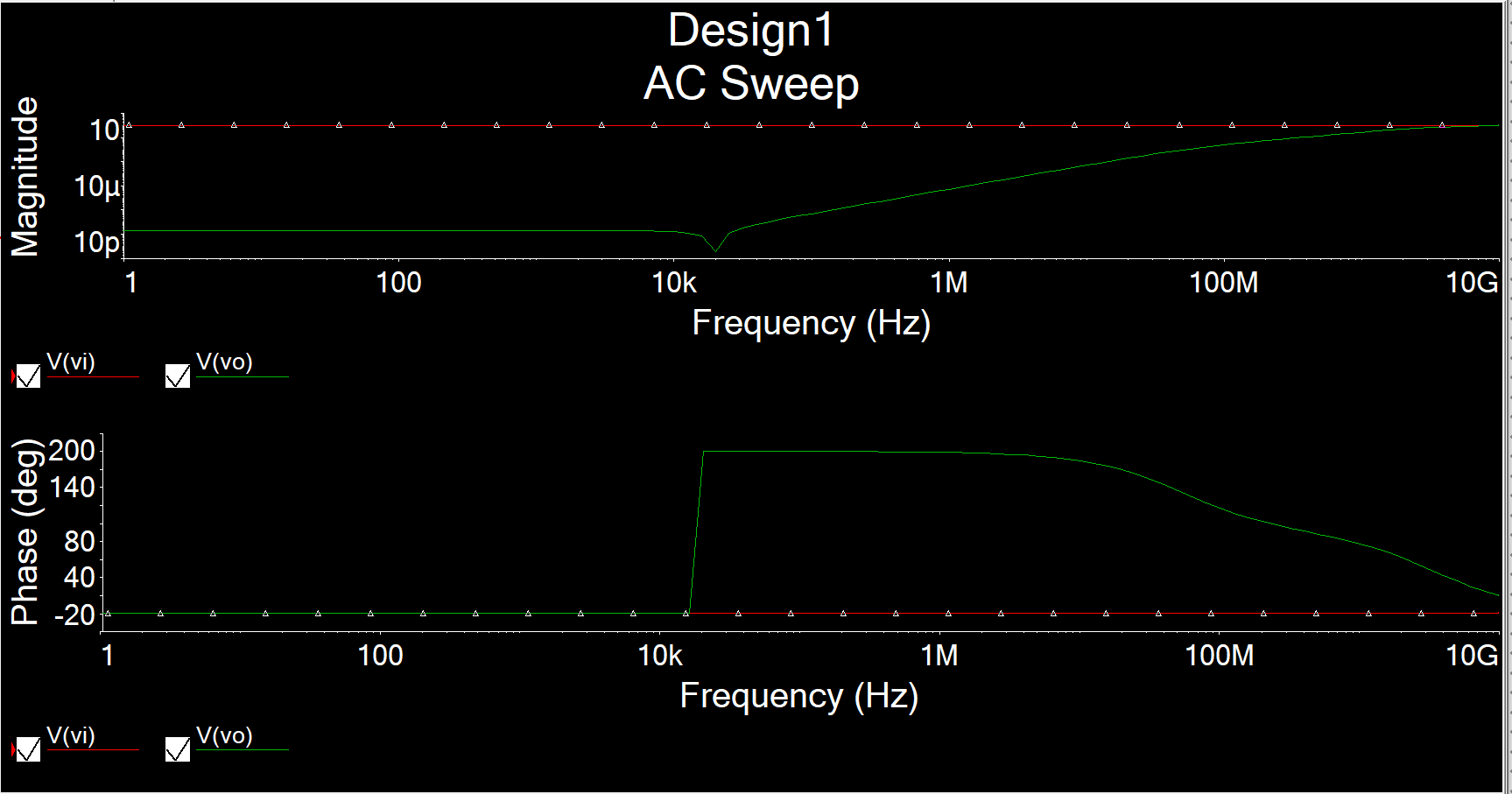


Figure 18: AC Simulation for Av, Ri and Ro for Fig. 8(a)

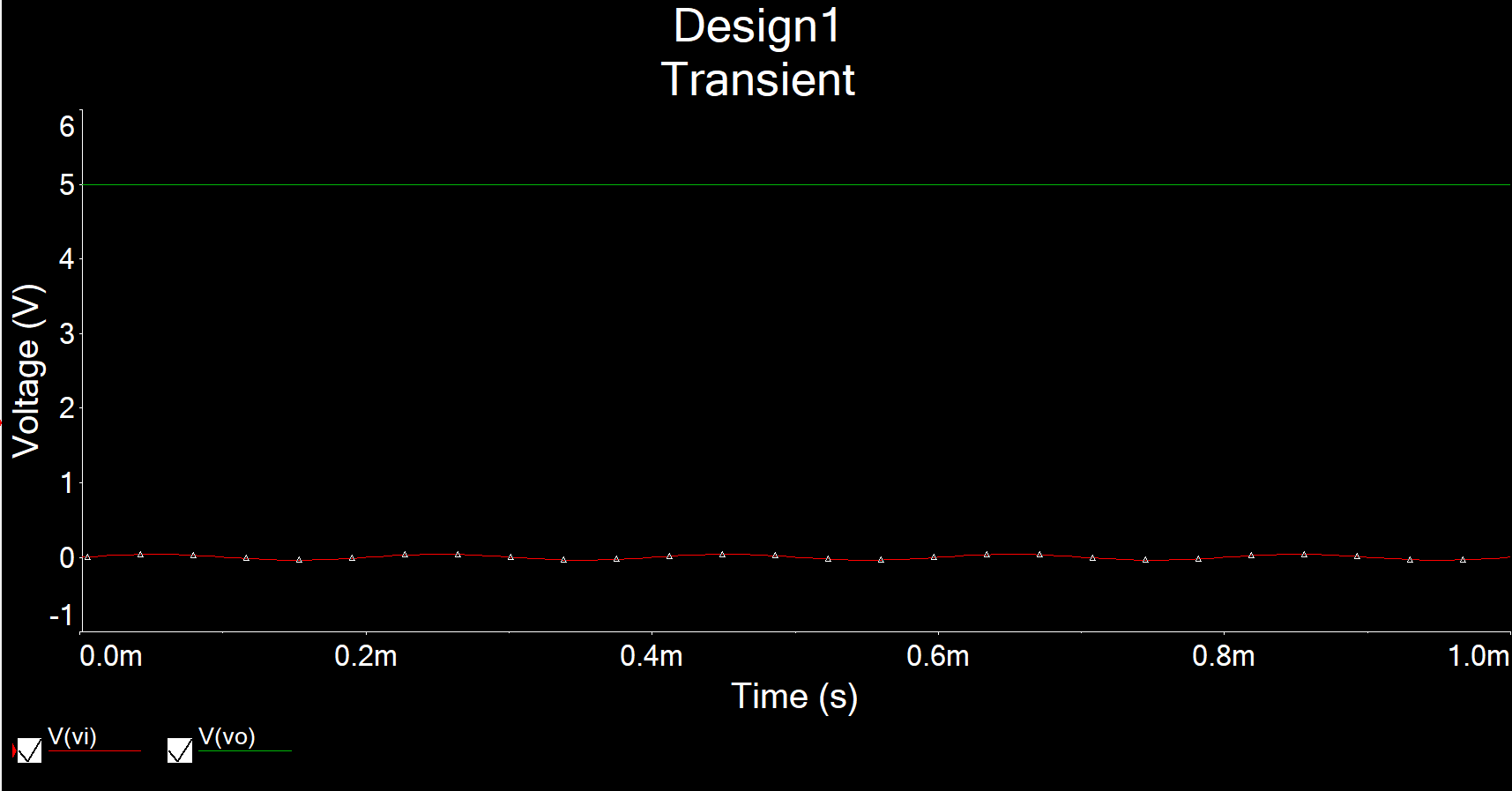


Figure 19: Time-domain Waveform for Fig. 8(a)

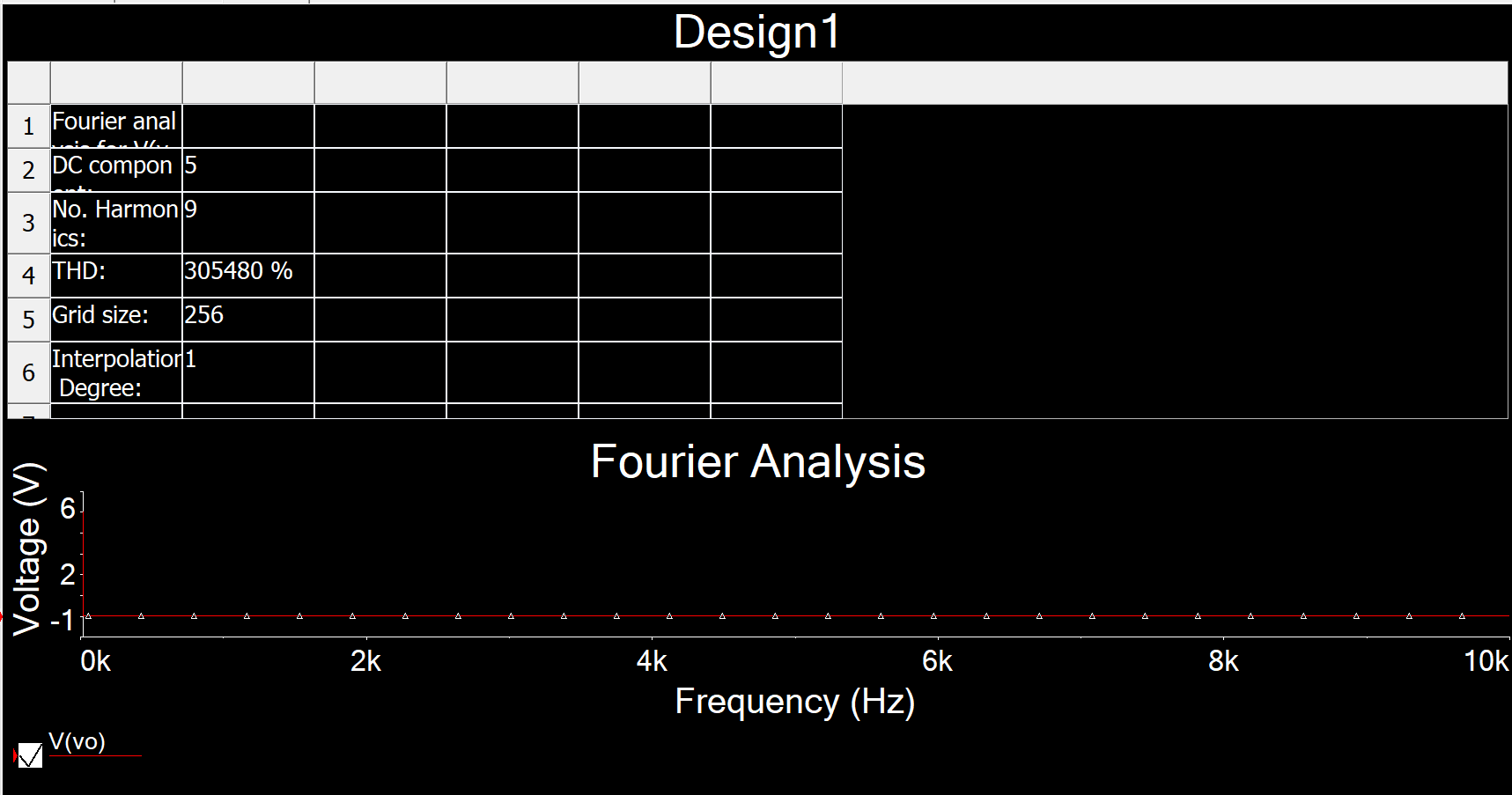


Figure 20: THD Waveform for Fig. 8(a)

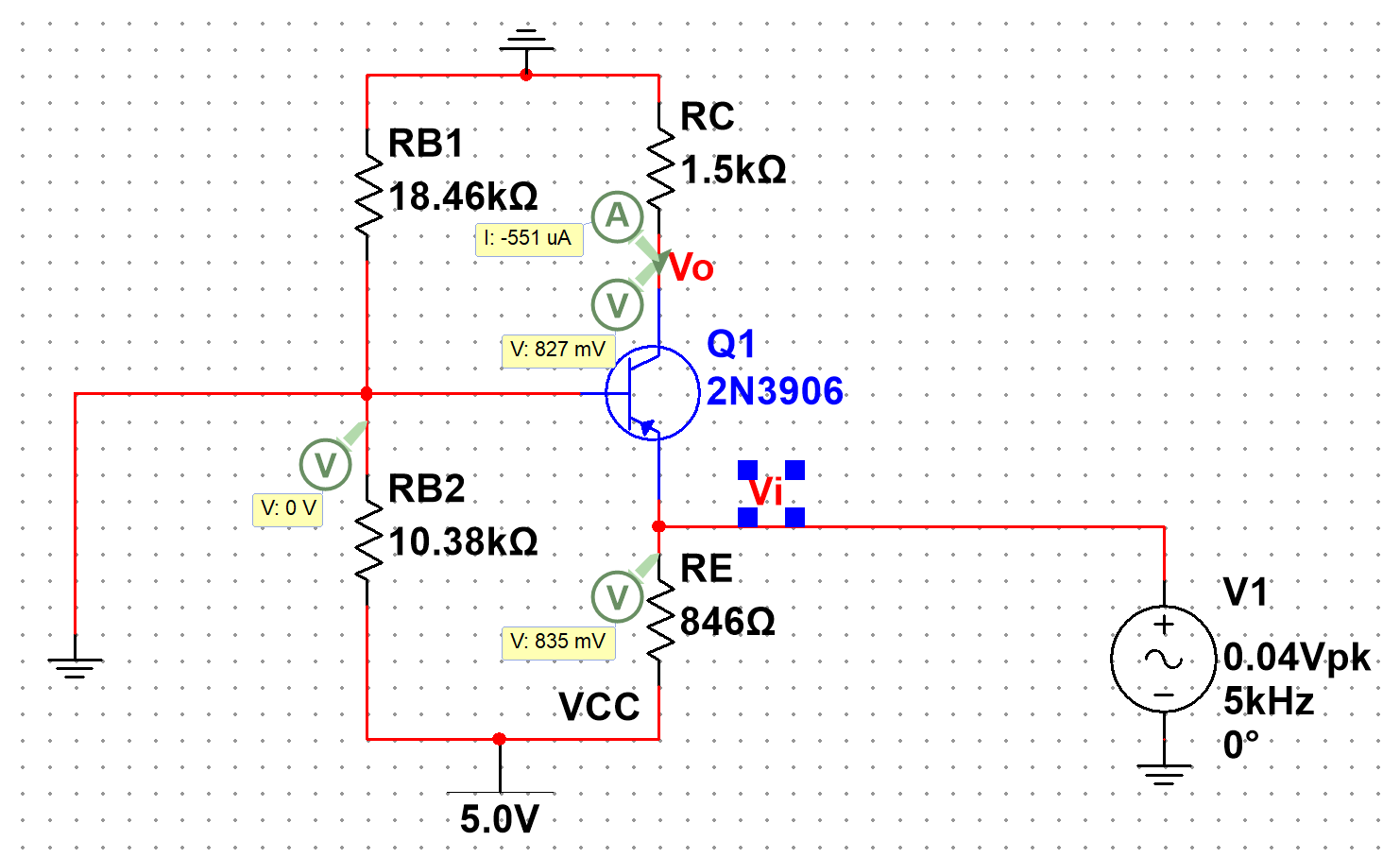


Figure 21: DC solution for Fig. 9(a)

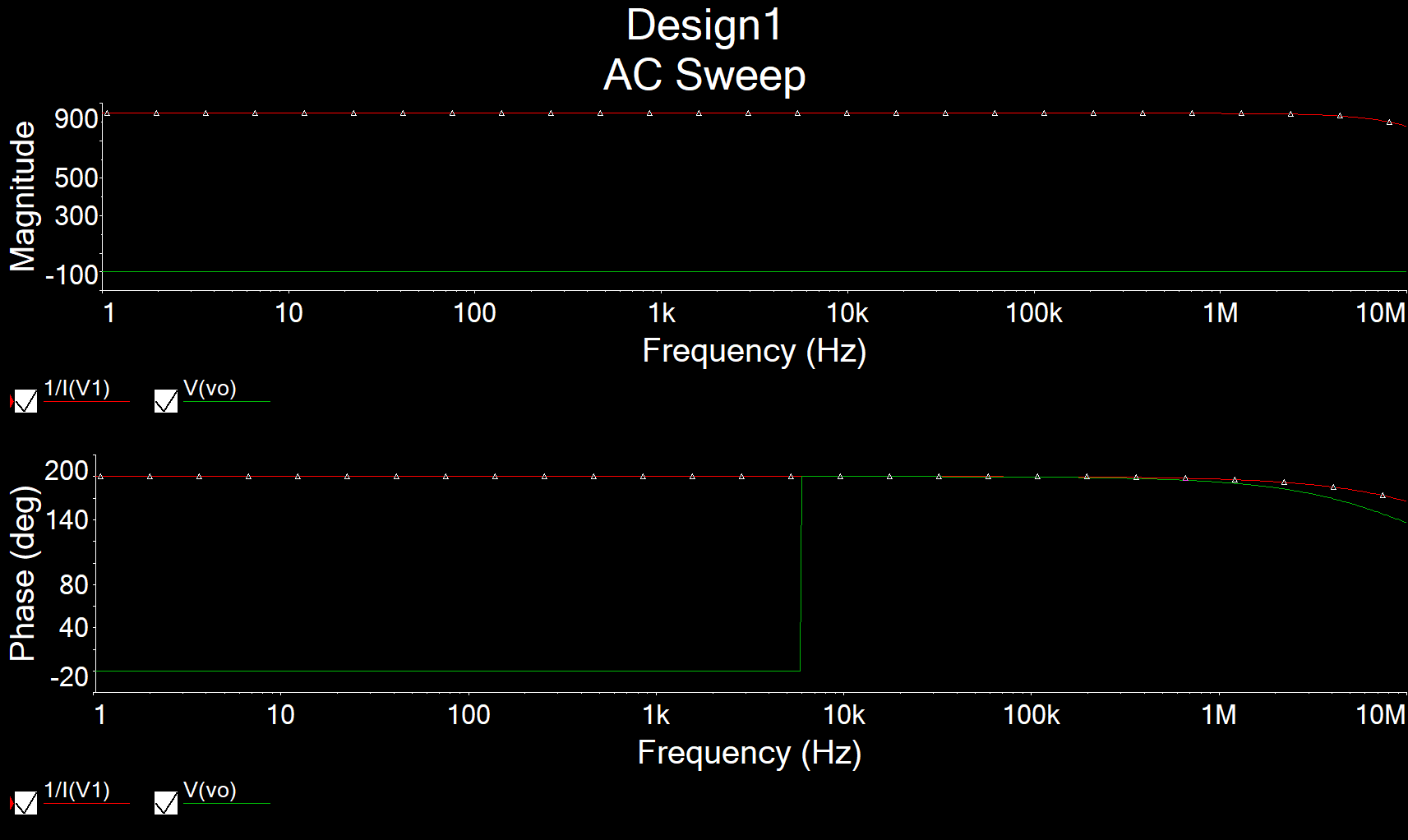


Figure 22: AC Simulation for Av, Ri and Ro for Fig. 9(a)

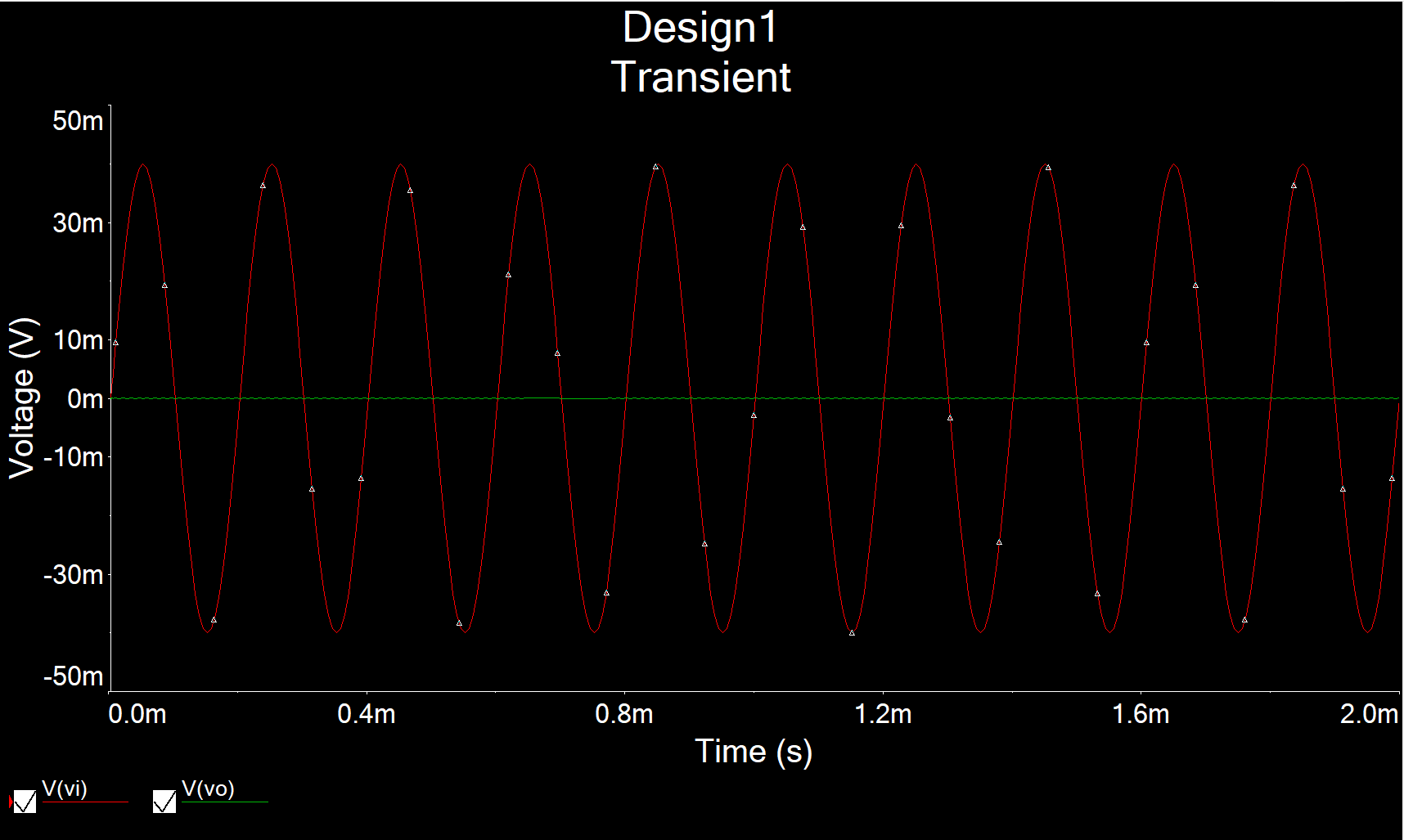


Figure 23: Time-domain Waveform for Fig. 9(a)

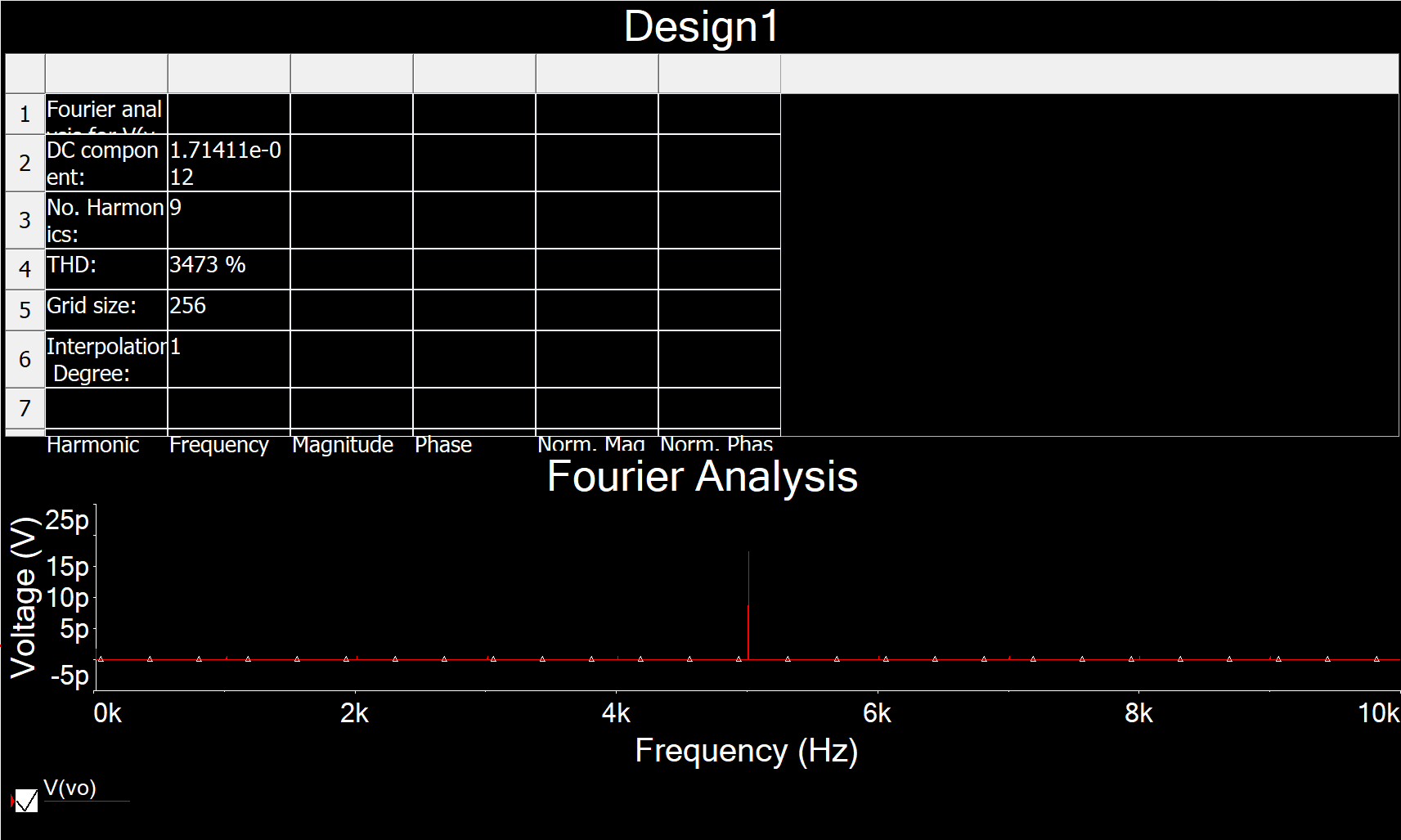


Figure 24: THD Waveform for Fig. 9(a)