Electronics II Project 2

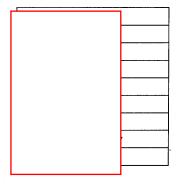
Dr. Dua

10/24/13

Class A Amplifier



Table-1 (data recorded in lab for efficiency calculations)



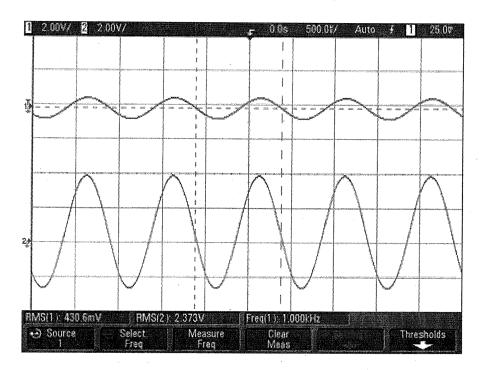


figure – 2 (Class A Input to the Op-Amp, and Output from the power amplifier)

Class B Amplifier

After the class B amplifier was built and connected to the DC Power Supply the output signal showed bipolar transistors. Both transistors have input signal will supply the turn on e FFT the frequencies that compose the requency. In figure-5 the 1st Harmonic 4. From this graph (figure-5) the total



figure – 3 (Class B amplifier diagram)

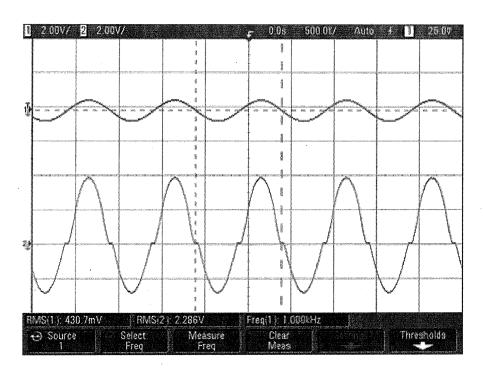
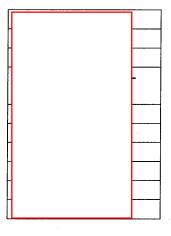


Figure – 4 (Class B input and output to the Op Amp)

Class AB Amplifier

By biasing the Tip 31 and Tip 32 transistors the cross over distortion at the output of the class B amplifier can be eliminated, since the input no longer supplies the voltage to bias the transistor in the active region. The circuit in figure-3 includes the Op Amp, the driver circuit and the class AB amplifier without the R_E resistors. After this circuit was left on for several minutes the transistors became very hot, eventually melting the breadboard. The circuit had reached thermal runaway, and becomes hot small pomore current to flow transistor will overher unaway, when I_E increducing the voltage a power dissipation and

Table -3 (data recorded in lab for efficiency calculations)



reduced from the clas

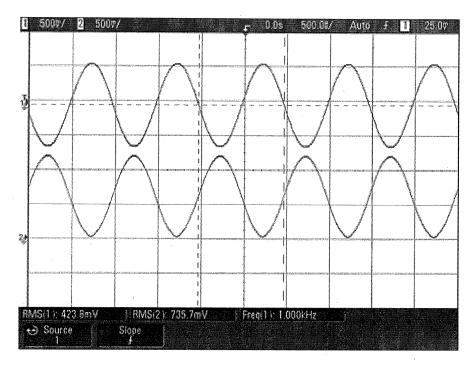


Figure – 7 (Class AB Amplifier Output Ch2, Op Amp Input Ch1)