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| **Engineering Technology, CSULB** |
| **Experiment 29- Class B Push-Pull Amplifiers** |
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| **ET 341L****Solid State II****Professor Lopez****1/31/2014** |

The objective of this lab is to build and examine the characteristics of a Class B Push-Pull Amplifier. In this experiment we are using: transistors 2N3904 (NPN) and 2N3906 (PNP) , and two 1N4148 diodes. Each transistor of the class B push-pull amplifier operates in the active region for half of the ac cycle. Class B push-pull amplifier is more efficient than Class A. Its efficiency is close to 78.5 percent. With a single power supply, the MPP is approximately equal to Vcc. Class B push-pull amplifier is widely used for the output stage of an audio system because they can deliver more load power. How the circuit operates is that when the positive signal of the waveform is present, the top transistor conducts (NPN) and when the negative signal of the waveform is present, the bottom transistor conducts (PNP). The circuit is attenuating and not amplifying, it is only driving current through the load. The first circuit has both transistor off which is why there is a crossover distortion. To minimize the distortion, in the second circuit we added two diodes.



