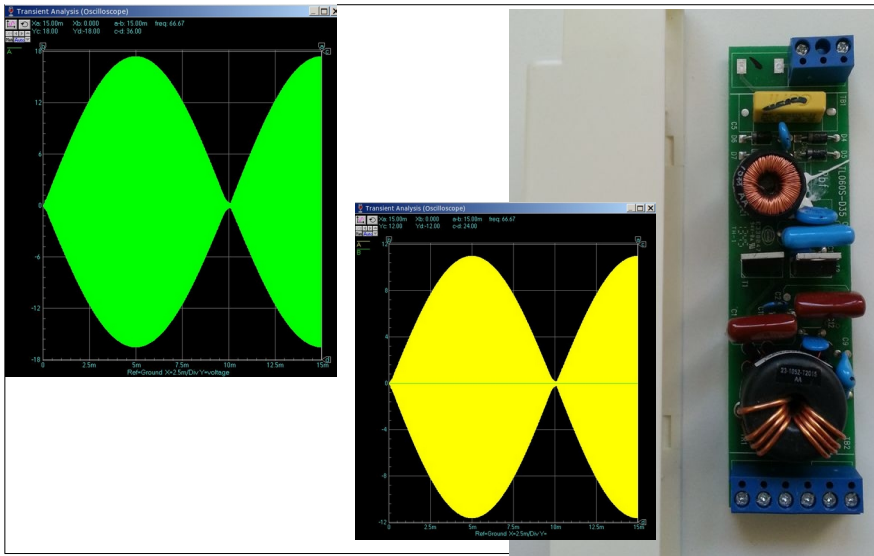


Electronic Transformer 100W without High Side Driver.



Characteristics:

Designation: Electronic Transformer

Application: Power Supply for 12V Halogen Spot Lamps

Power: 100-240V, Sec 12V/8A

Prize: low cost

Special: Push-pull output stage with 2 N MOS power transistors does not require a high side driver.

Fig. left: Electronic Transformer open

Fig. far left: Signals, U_{sec} green, I_{sec} yellow.

Description:

The present electronic transformer has a push-pull output stage consisting of two N MOS power transistors. The circuit works without a high side driver and is only driven at the lower transistor. The upper transistor is automatically switched on and off at the right time. This eliminates the need for this relatively expensive driver. The lower transistor can be controlled in many different ways. The operating frequency is about 50kHz. Signals of the simulation see pictures 1a and 1b.

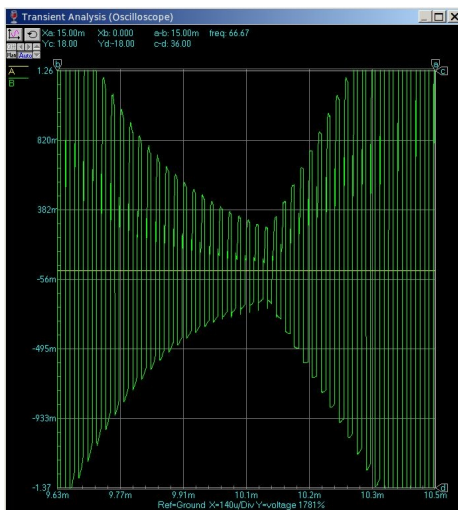


Fig. 1a: Signal at Minimum U_{sec} green.

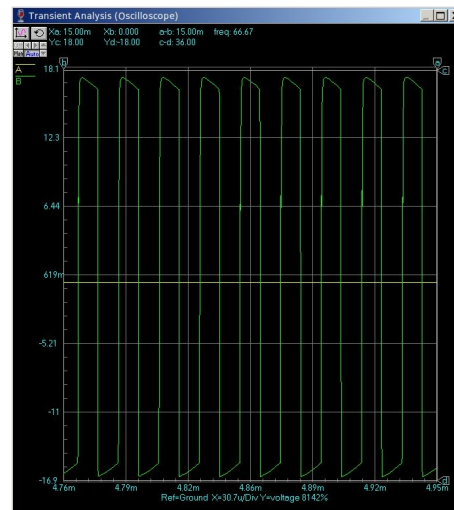


Fig. 1b: Signal at Maximum U_{sec} yellow