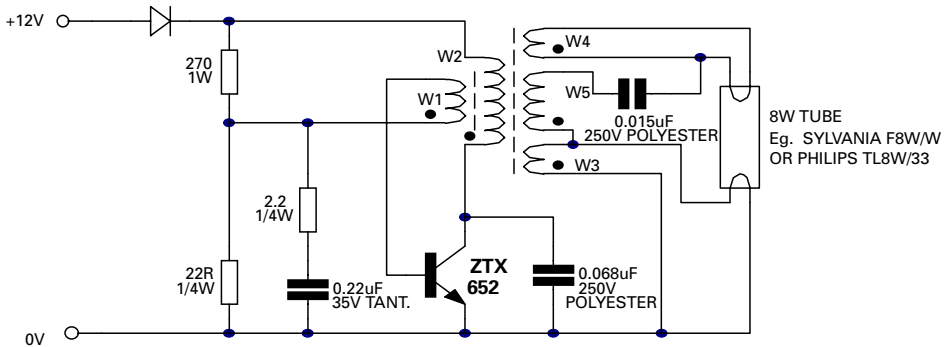


8W, 12V Fluorescent Lamp



Fluorescent tubes are notoriously difficult loads to drive. Before striking, the tube effectively appears open circuit, needing 300V or greater to provoke conduction. After striking they adopt a low voltage characteristic where the required current can be sustained at low voltage, typically 40V. These changes in characteristics place severe demands on any DC-AC converter and the associated transistors used to drive the tubes.

The combined characteristics of high current capability, low switching losses and high breakdown voltage of the TO92 style ZTX652 allows this simple

automotive/ caravan/RV fluorescent lamp to be constructed without the size and cost penalties of the TO220 transistor normally needed for this application. Handling 90V pulses during striking, and 3A peak current during normal operation, the ZTX652 enables this circuit to run at 20kHz with an efficiency of over 80%.

The 1.5W PCB mounted power rating of the ZTX652 gives this converter the capability of operating safely from supplies in the range of 10-16.5V, even under fault conditions such as failed or disconnected fluorescent tubes.