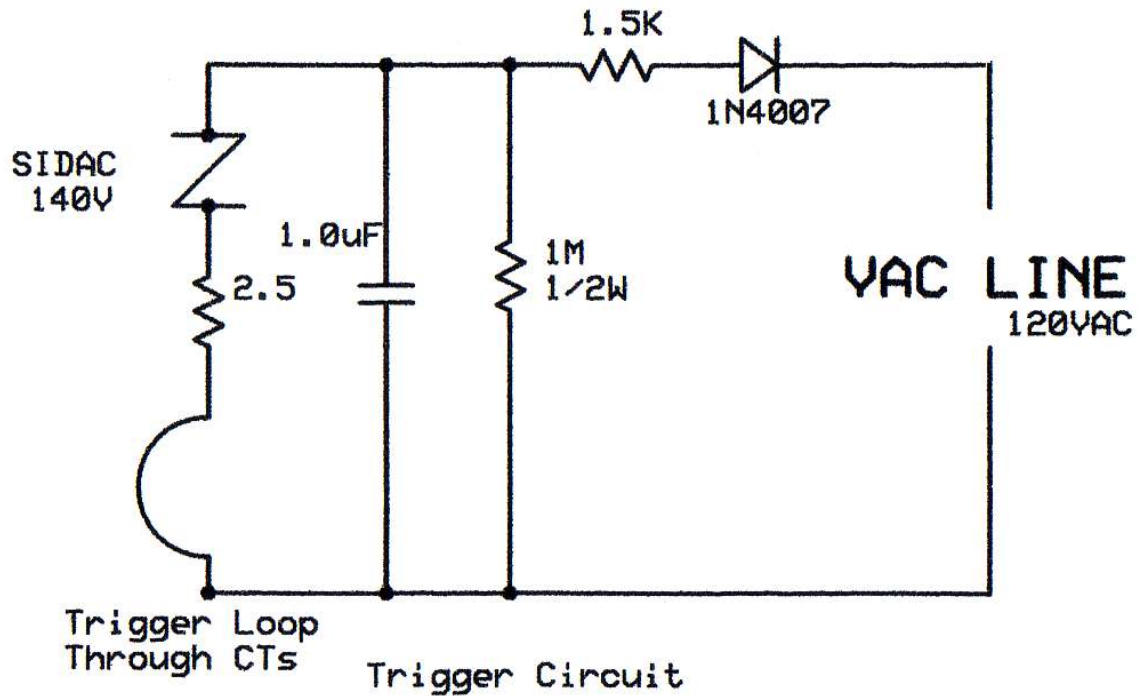


OL-DRSSTC Trigger Circuit

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In order to trigger the OL-DRSSTC's H-bridge into oscillation, the circuit needs a fast powerful current pulse. A simple cheap (\$2) circuit to do this is shown:

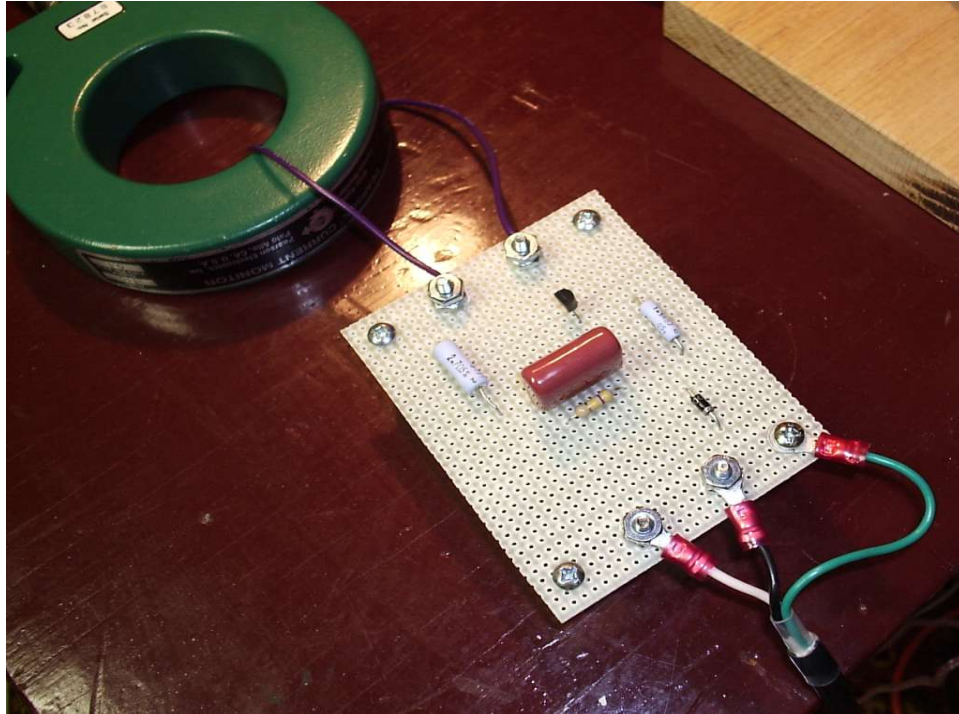


The AC line is simply rectified and charges a 1uF cap. At about 140 volts DC, the SIDAC fires and creates a powerful tight current pulse. This circuit is designed to fire at 60 Hz, but simply removing the 1N4007 will make it fire at 120 Hz.

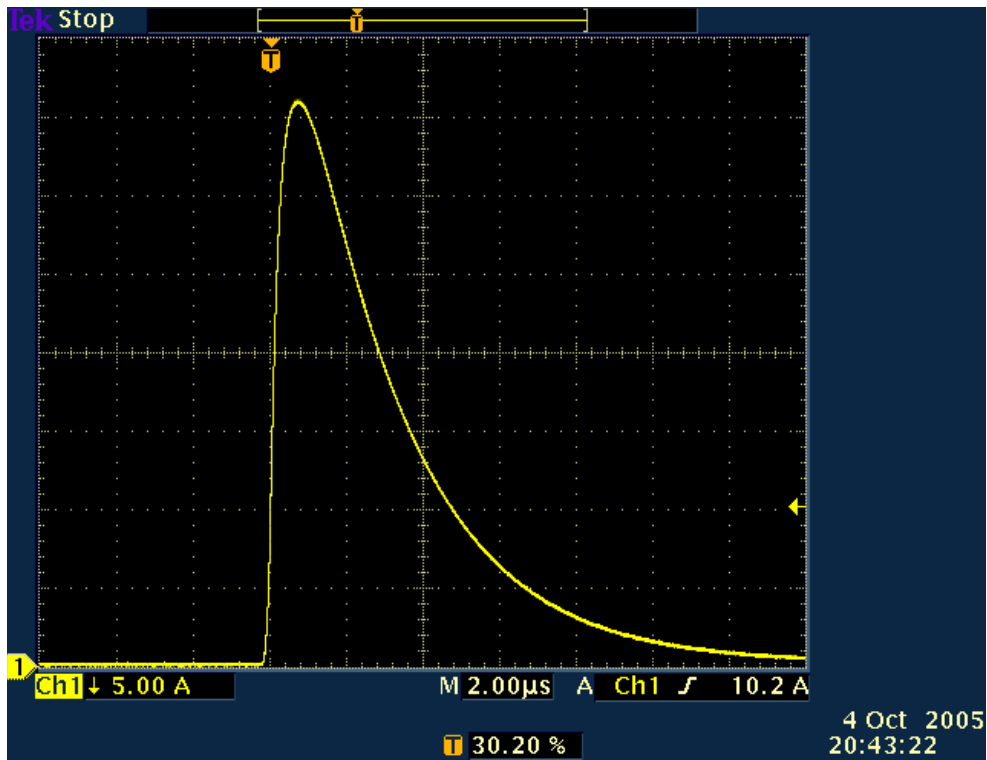
At this time at 60Hz, the 1.5K 2 watt resistor reaches 100 degrees C. You may want to use a 5W resistor especially at 120Hz. Everything else runs cold.

The 1M resistor drains the capacitor's voltage in a few seconds for safety.

Here is the prototype circuit:



Here is the pulse. ~5uS at 36 amps peak :-))))



Note that the loop's "tiny inductance" and the CT "load" will affect things some...