

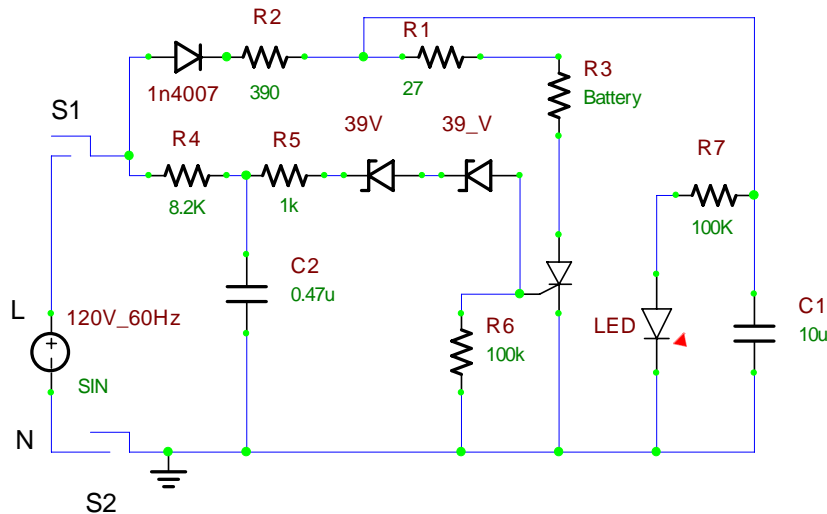
## Battery Zapper

( July 2009 )

Supply to the unit should preferably come through a push button switch , S1 / S2.  
Push to switch on. Two poles to be used. One on the Line side and one in the Neutral side.

That way the circuit is disconnected from the mains completely in the “off” state.  
The LED indicates voltage on the cap and also discharges it when mains is not present.  
It will probably be quite dim.

The circuit is yet to be tested. ( this one for 120 Volts 60 Hz mains ).



Some thoughts on component values.

Since the current is pulsed of short duration the power dissipation will be small. However the voltages can be high as it is connected to the mains. Higher wattage components can handle higher voltages than low wattage parts . So I would probably use the following.

R1 at least a 1 watt wirewound resistor . Carbon film is OK I guess but can't say how long it would last reliably.

R2 a 390 ohm 1 watt resistor .

R4 a 8.2K ohm 1 watt resistor

R5 a 1K ½ watt resistor

R6 a 100K ½ watt resistor

R7 a 100K or 47 K ½ watt resistor

C1 a 10uF 200 volt film capacitor ( X2 type might be the best )

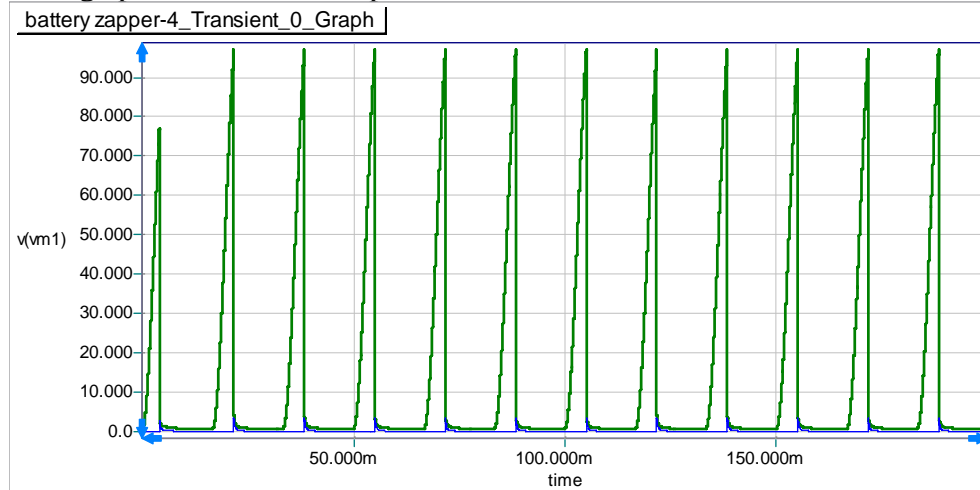
C2 a 0.47uF / 250 V film cap ( again X2 type might be preferable)

The LED is preferably RED .

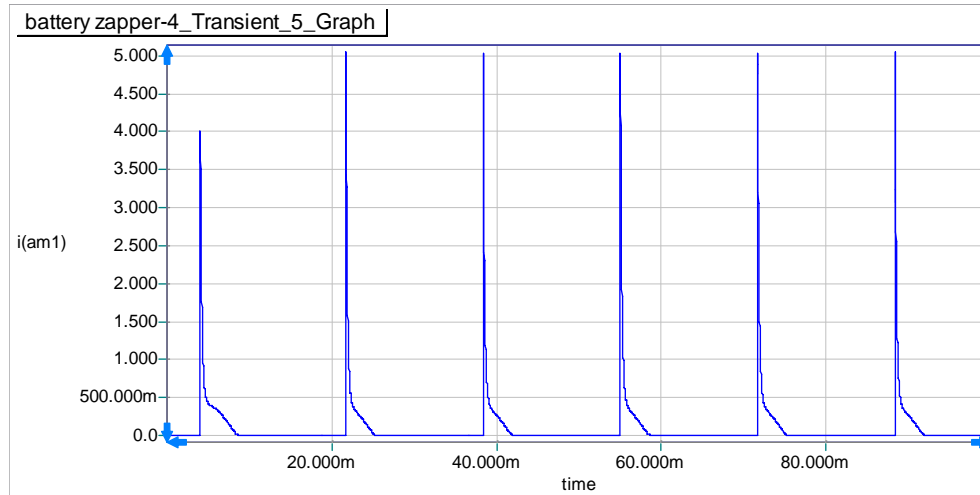
The SCR can be any general purpose 5A SCR.

Zeners are 39V ½ watt.

Voltage pulses across the capacitor C1.



Current discharge with  $R1 = 18\ \Omega$  Peak current about 5 amps.



$R1 = 10\ \Omega$  . Peak current about 8.5 amps

