

150W PFC'd Offline Flyback LED driver. Fully Dimmable

PCB HORIZ

No Electrolytic capacitors

Transformer, Flyback 150W
Epcos PD4040,
N57
 $N_p = 385$ (gap $\sim 0.57mm$)
 $N_s = 20$, $N_{s1} = 20$, $N_{s2} = 20$, $N_{s3} = 20$, $N_{s4} = 20$
 $L_p = 15\mu H$, $L_s = 15\mu H$, etc
 Interleaved as follows---

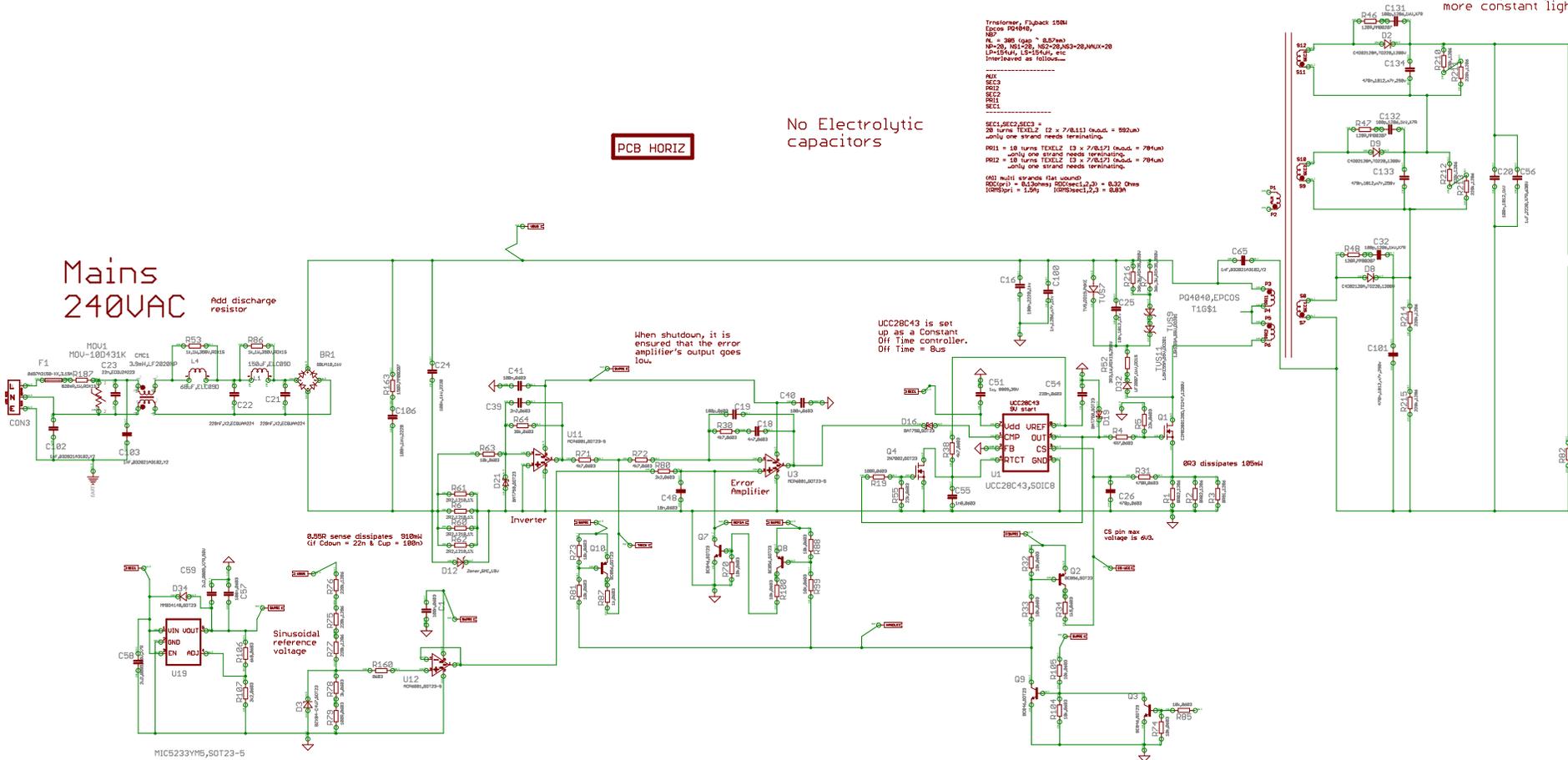
 SEC1, SEC2, SEC3 =
 20 turns TEXELZ (3 = 7/8,17) (quad. = 902uH)
 with one strand needs terminating.
 PRI1 = 10 turns TEXELZ (3 = 7/8,17) (quad. = 784uH)
 with one strand needs terminating.
 PRI2 = 10 turns TEXELZ (3 = 7/8,17) (quad. = 784uH)
 with one strand needs terminating.
 (W1) Multi strands flat wound
 $RDC(wr1) = 0.130m\Omega$; $RDC(wr2,2,3) = 0.30$ Ohms
 $RDC(wr4) = 1.0m\Omega$; $RDC(wr5,1,2,3) = 0.30m\Omega$

Output capacitor
can be very minimal
or enough to give
more constant light.

IN TESTING...HAVE
60W, 100V ZENER
LOAD ON OUTPUT
AT ALL TIMES!!!
(Zener/FET/Heatsink)

100 white LEDs in series
to 150W

LEDs



MIC5233YMS,SOT23-5