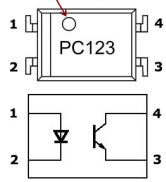


**Notes:** part reference designators vary for various models of LPS. Many connectors are not named so we used this tools labeling schema.

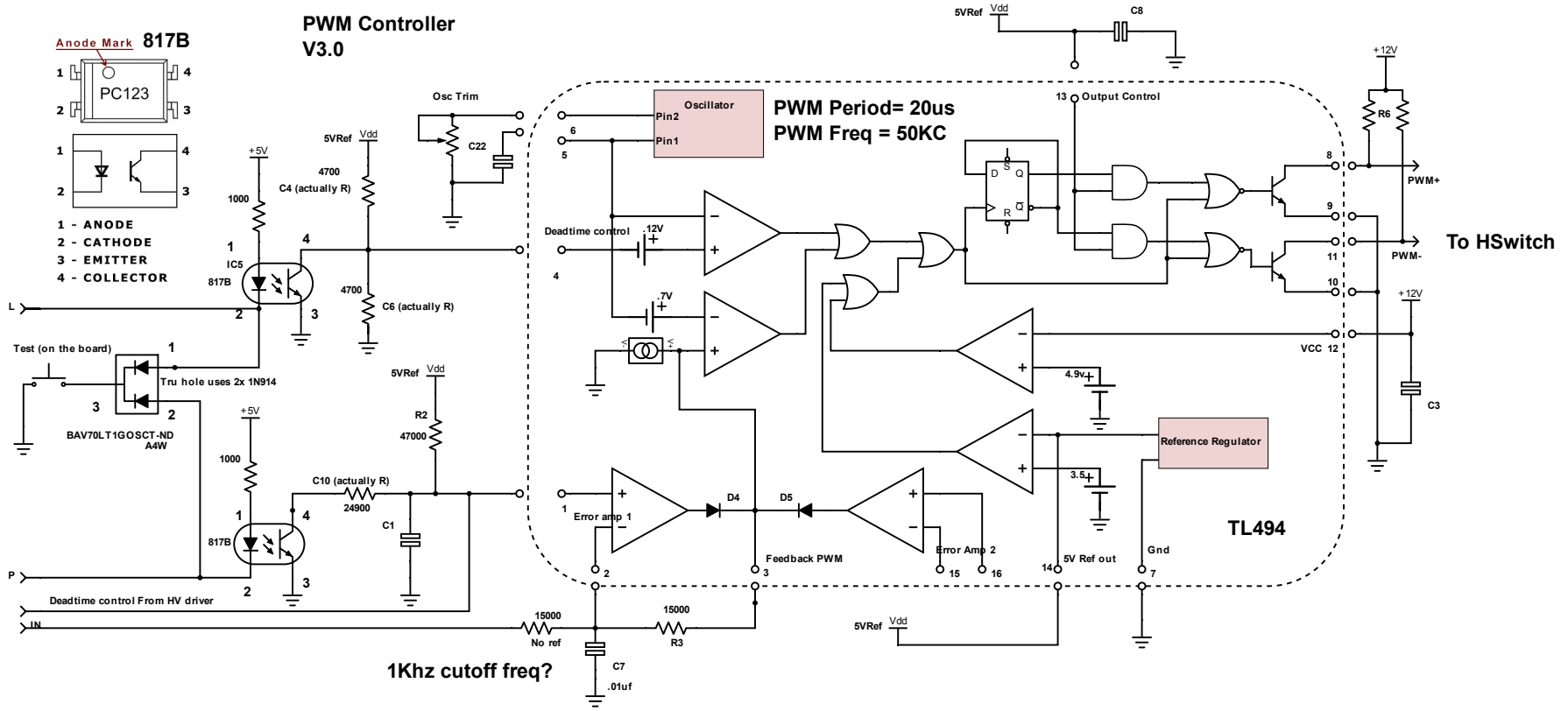
**High Voltage Driver  
V3.0**

# PWM Controller V3.0

Anode Mark 817B



- 1 - ANODE
- 2 - CATHODE
- 3 - EMITTER
- 4 - COLLECTOR

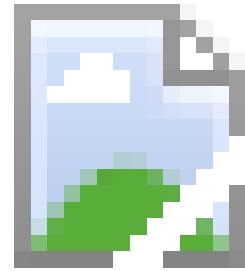
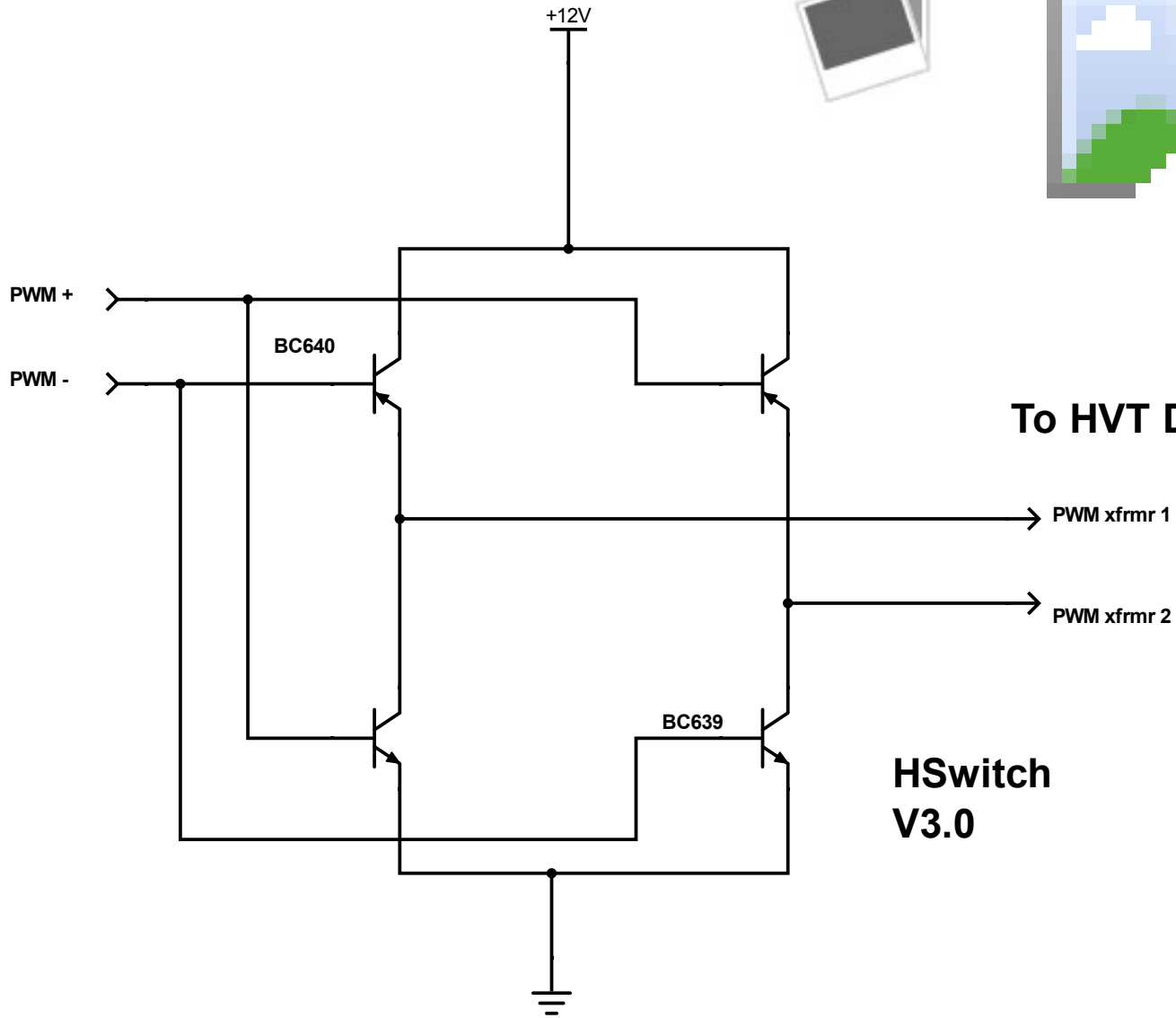


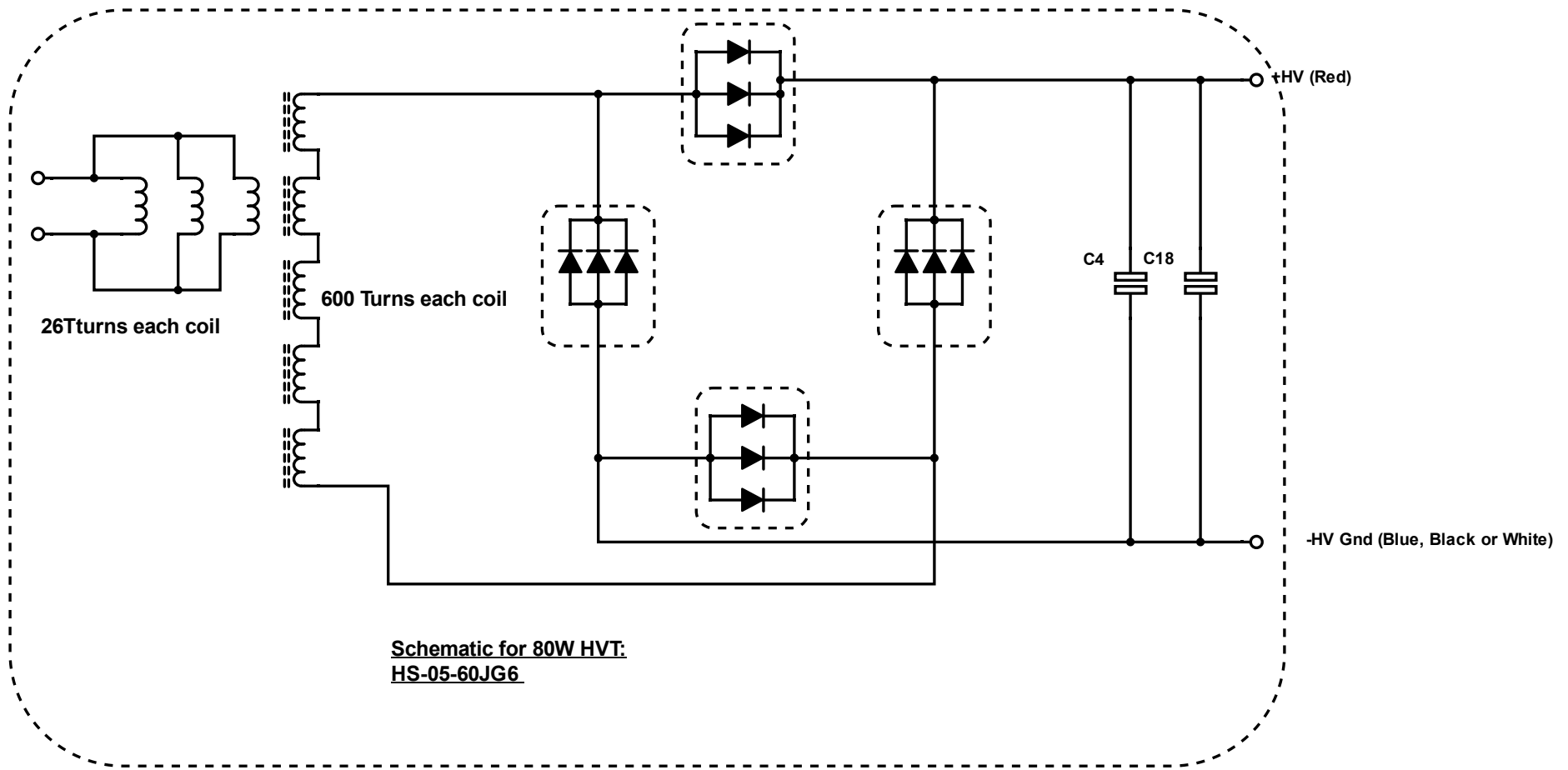
**PWM Period= 20us**  
**PWM Freq = 50KC**

**TL494**

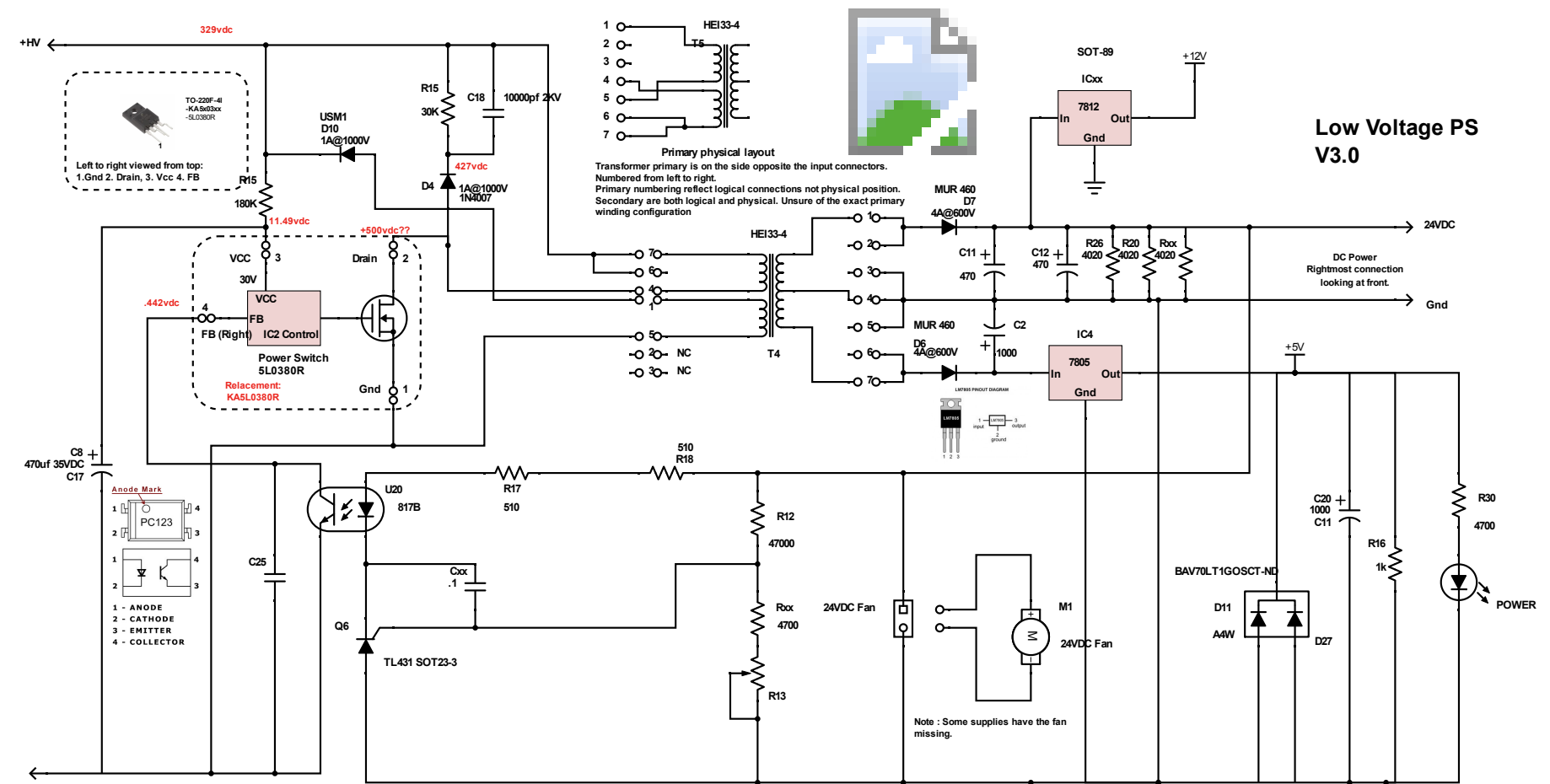
To HSwitch

**From PWM controller**



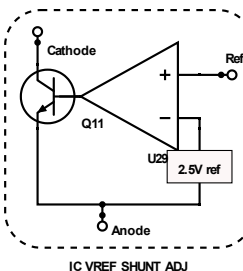
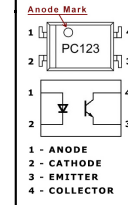
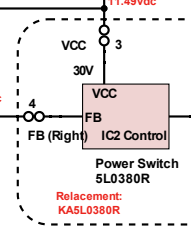
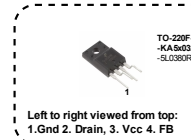
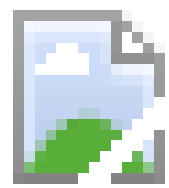
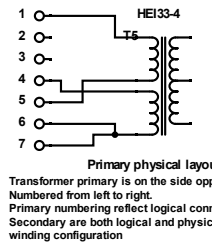


**Schematic for 80W HVT:**  
**HS-05-60JG6**



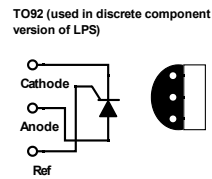
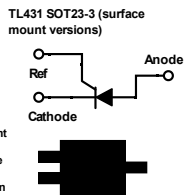
### Low Voltage PS V3.0

DC Power  
Rightmost connection looking at front.

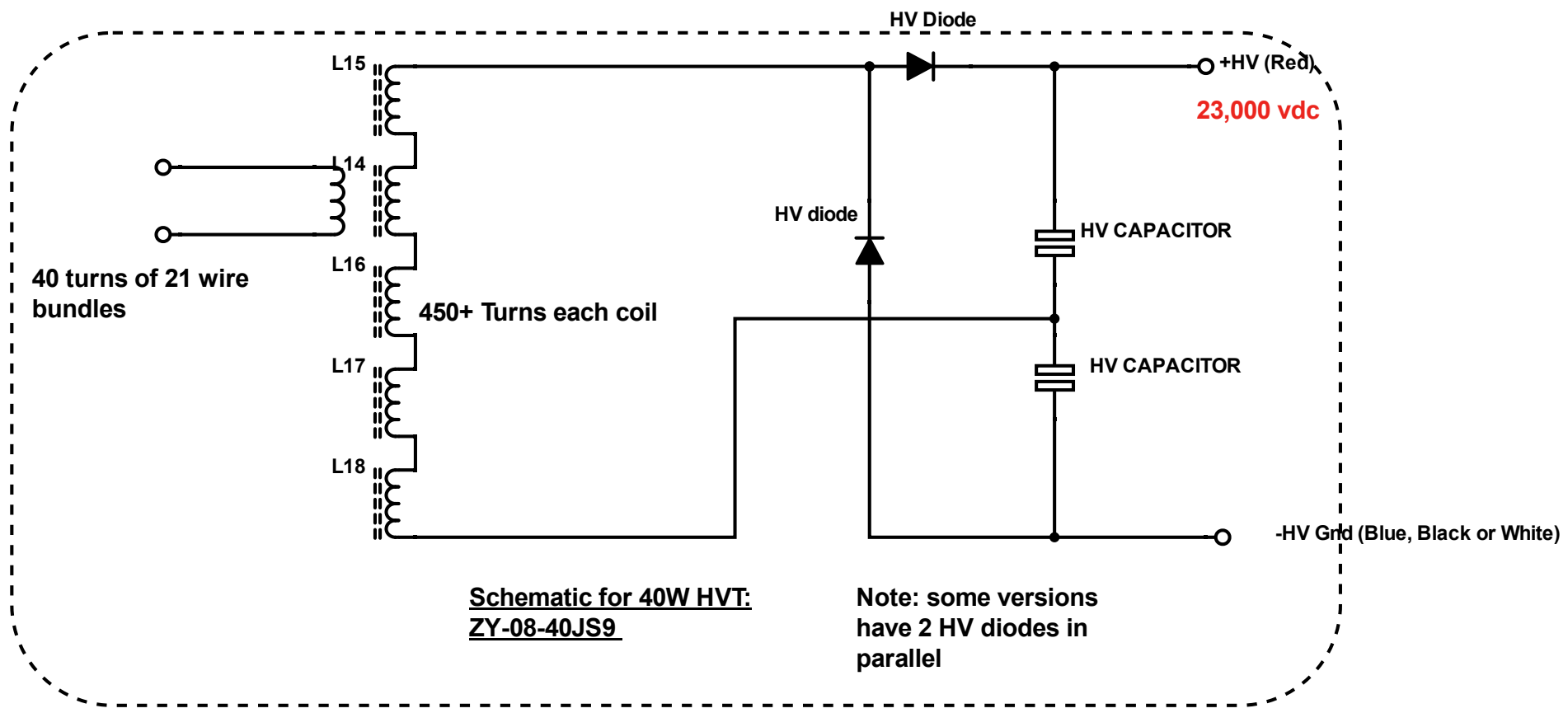


TL431CPK  
296-1991-1-ND  
[Link](#)

The implementation of the 431 in the smt version of the board seems to be connected like a 432 in that the cathode and ref are reversed???? The diagram to the right shows how it is connected in the circuit but that is the layout of a 432?



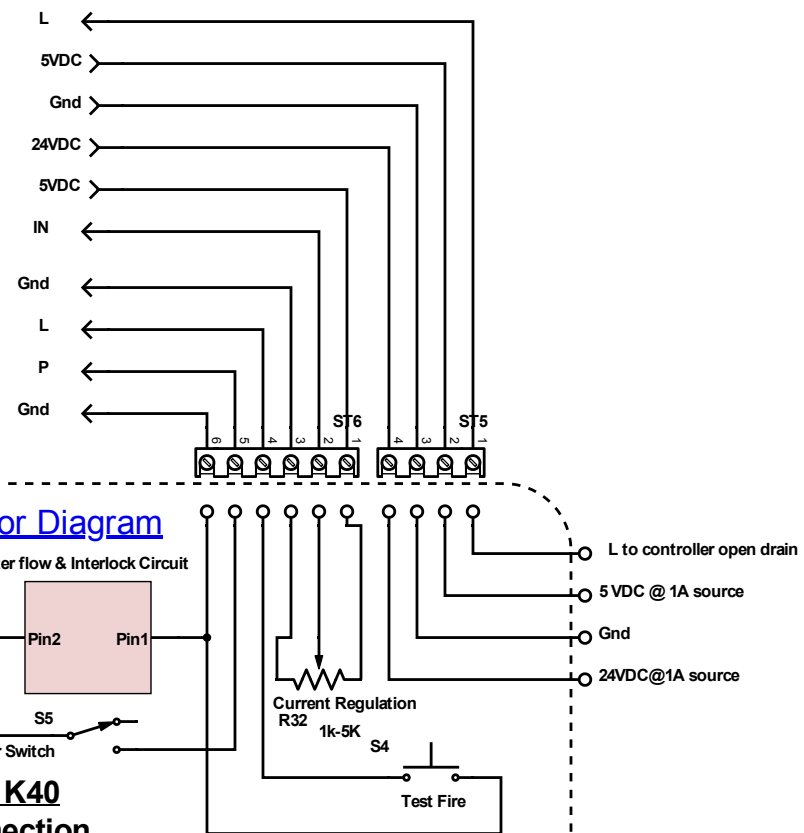
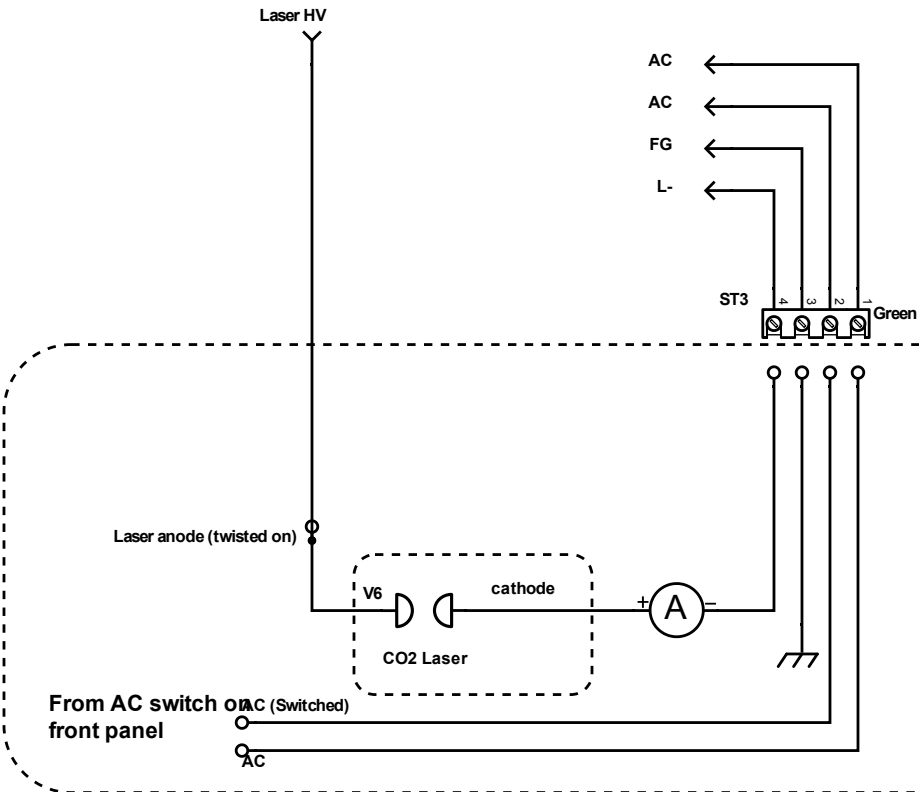
Note : Some supplies have the fan missing.



Schematic for 40W HVT:  
ZY-08-40JS9

Note: some versions  
have 2 HV diodes in  
parallel

### Laser HV Power Supply Internals



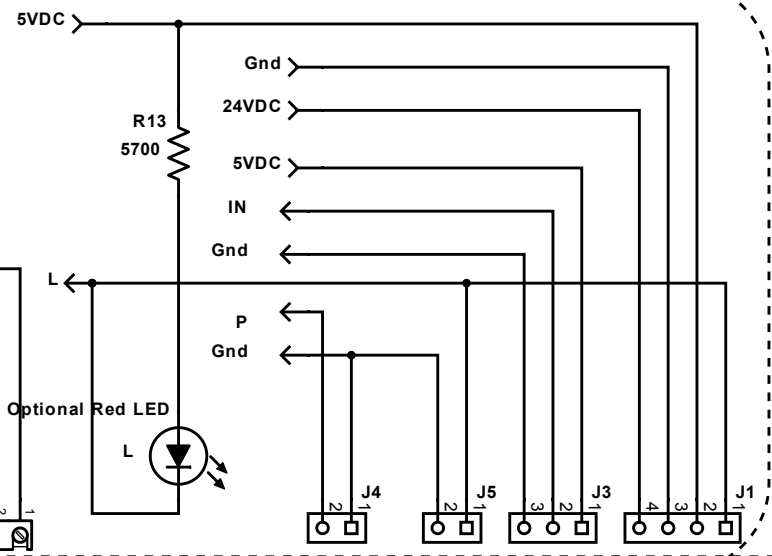
### Connector Diagram

### Typical K40 Interconnection

V3.0

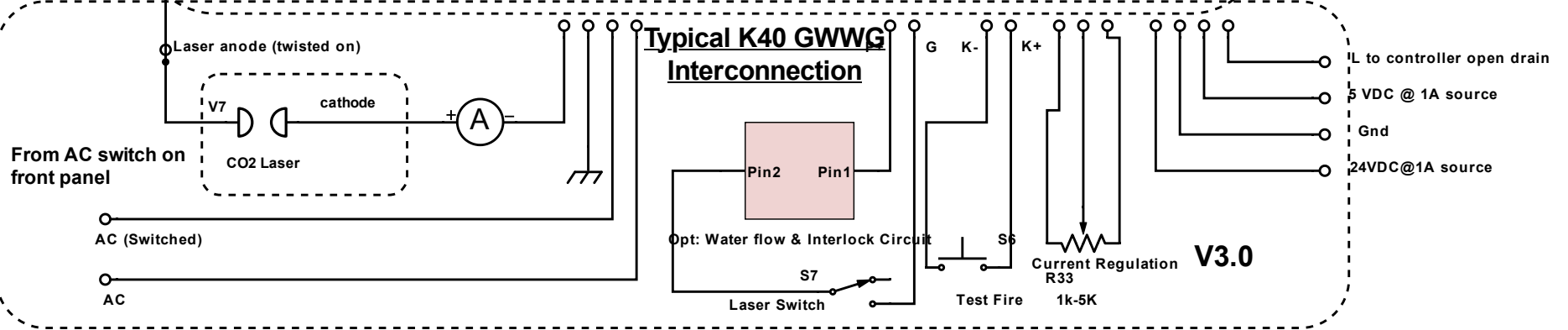
Laser HV

### Laser HV Power Supply Internals



**Notes on LPS variants:**  
 -Some supplies have K-/K+ reversed.  
 -Some have missing fans

### Typical K40 GWWG Interconnection



L to controller open drain  
 5 VDC @ 1A source  
 Gnd  
 24VDC@1A source