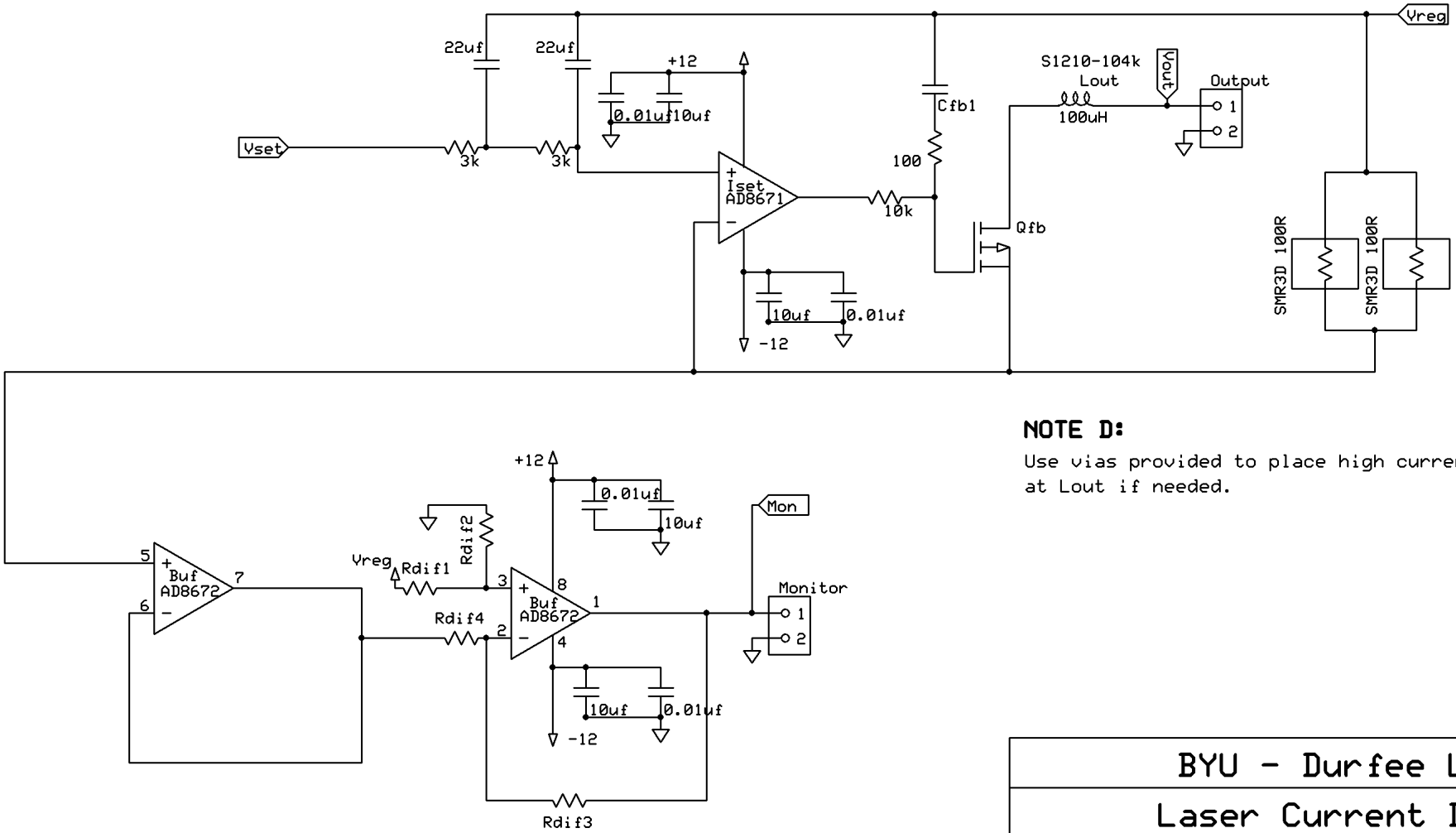
Positive Supply
Low Current Qfb = NDS0605
High Current Qfb = IRF9Z14

Negative Supply
Low Current Qfb = NDS7002A

Same pinout for NDS0605 and NDS7002A - no jumpers are needed

Choosing a value for Cfb1:

To stabilize the circuit, Cfb1 needs to be appropriately choosen based on the gate capacitance of Qfb.
NDS0605 has a very low gate capacitance and requires a cacitor of 8.2 nF at Cfb1.
Multiplying the 8.2 nF needed for the NDS0605 by the ratio of its gate capacitance to the gate capacitance
of the transistor to be used will provide a good starting point for the value of Cfb1 needed.
For example, the IRF9Z14 has a gate capacitance of 270 nF compared to the 79nF of the NDS0605. It is stabilized with a 33 nF capacitor.



NOTE D:

Use vias provided to place high current inductor at Lout if needed.

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Positive Supply

Connect Jp and Rp, not Jn and Rn jumpers/resistors

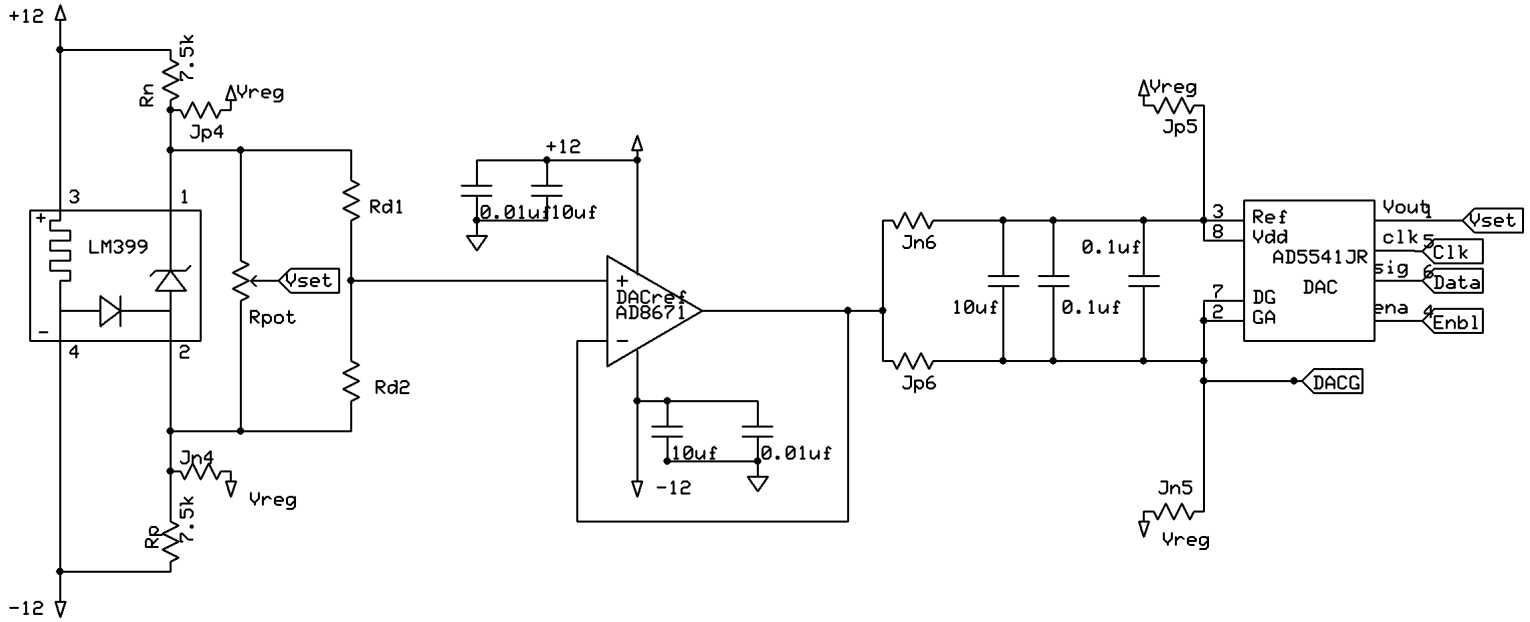
Rd2 = 11k, Rd1 = 28.7k

Negative Supply

Connect Jn Rn, not Jp and Rp jumpers/resistors

Rd2 = 28.7k, Rd1 = 11k

If Rpot is used, leave off op-amp and dac, and everything connected to them.



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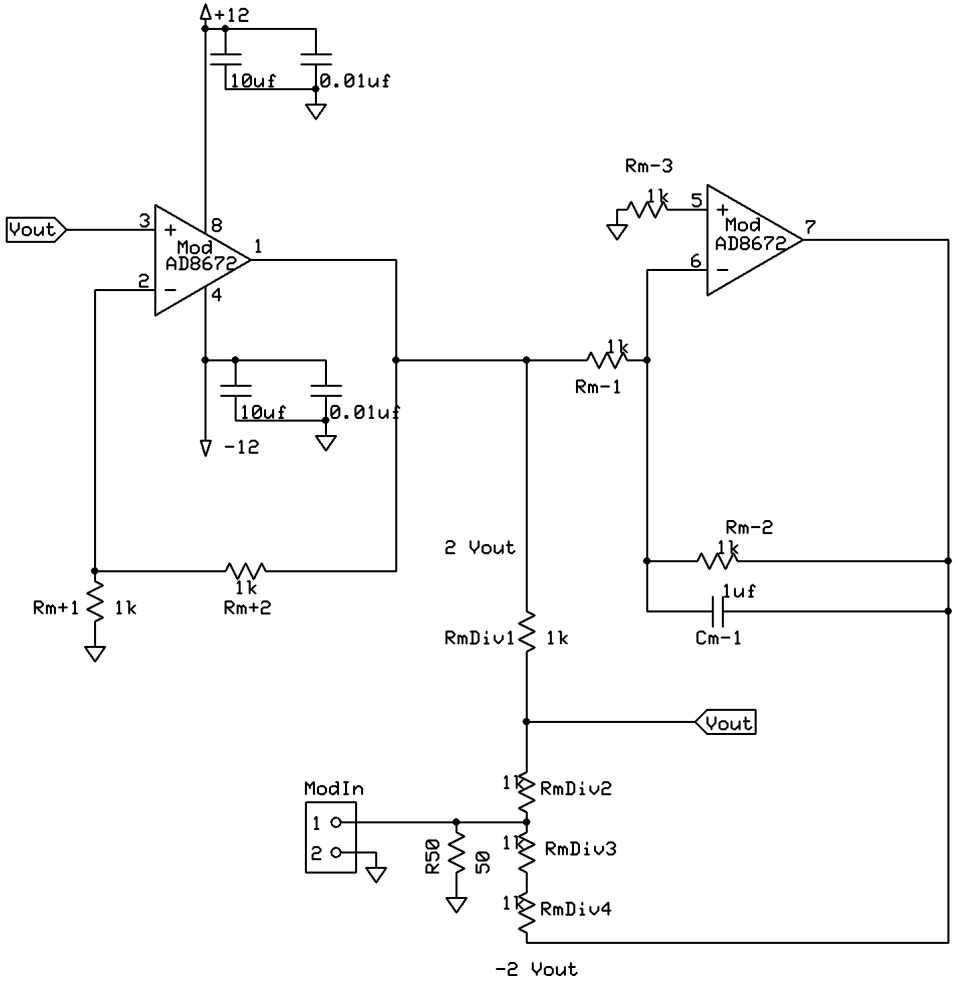

All Rm's are Vishay TNPW0805

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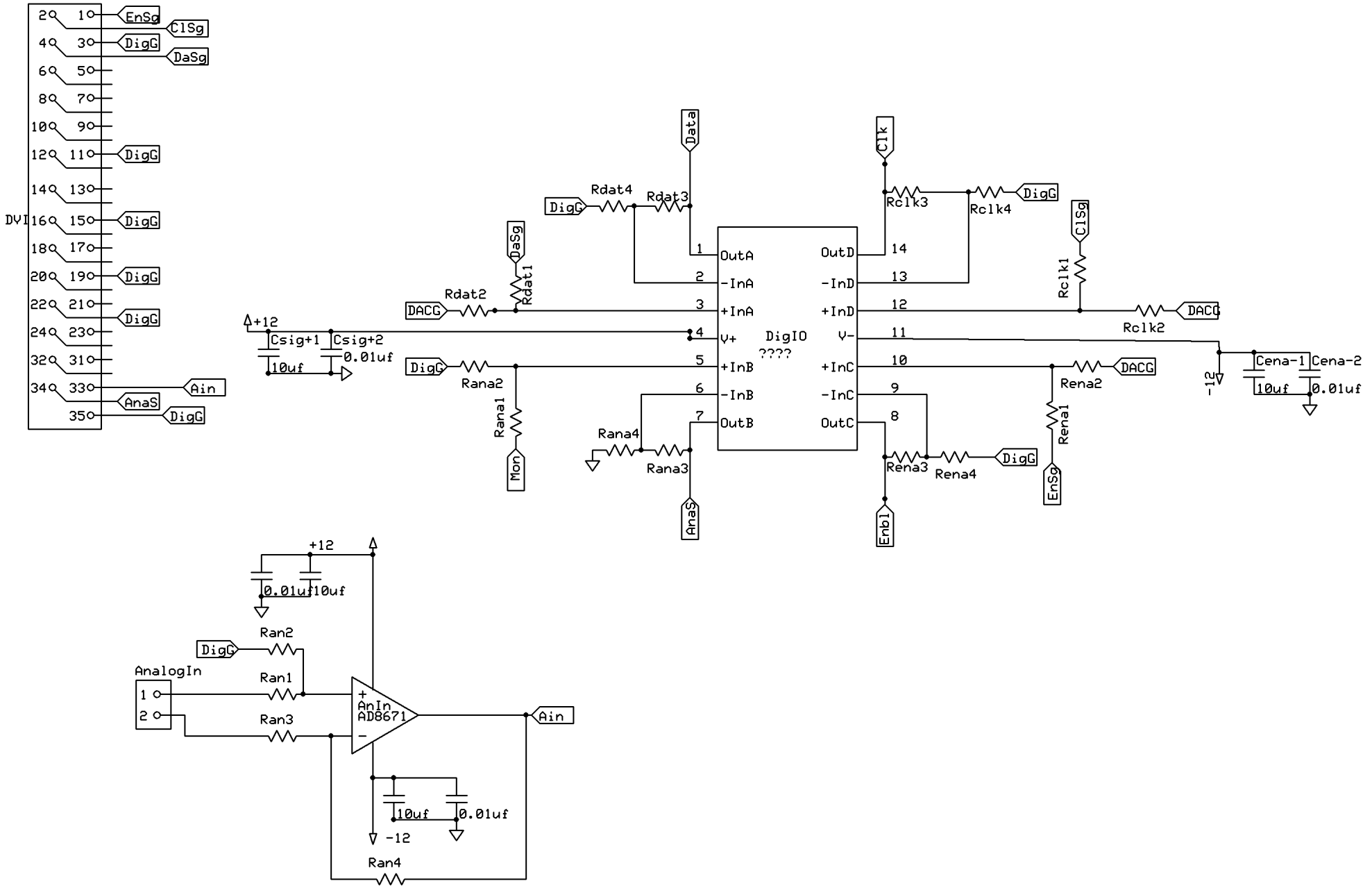

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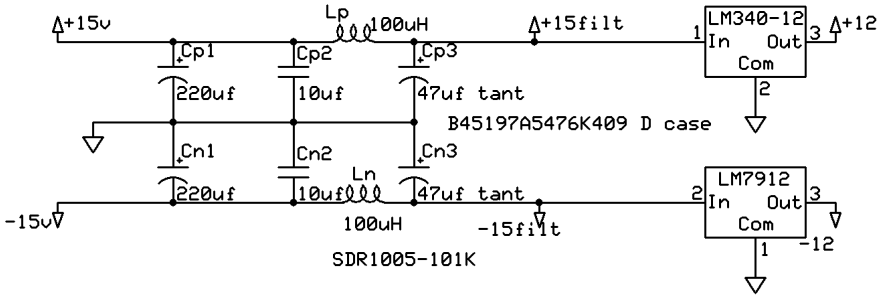


NOTE A:

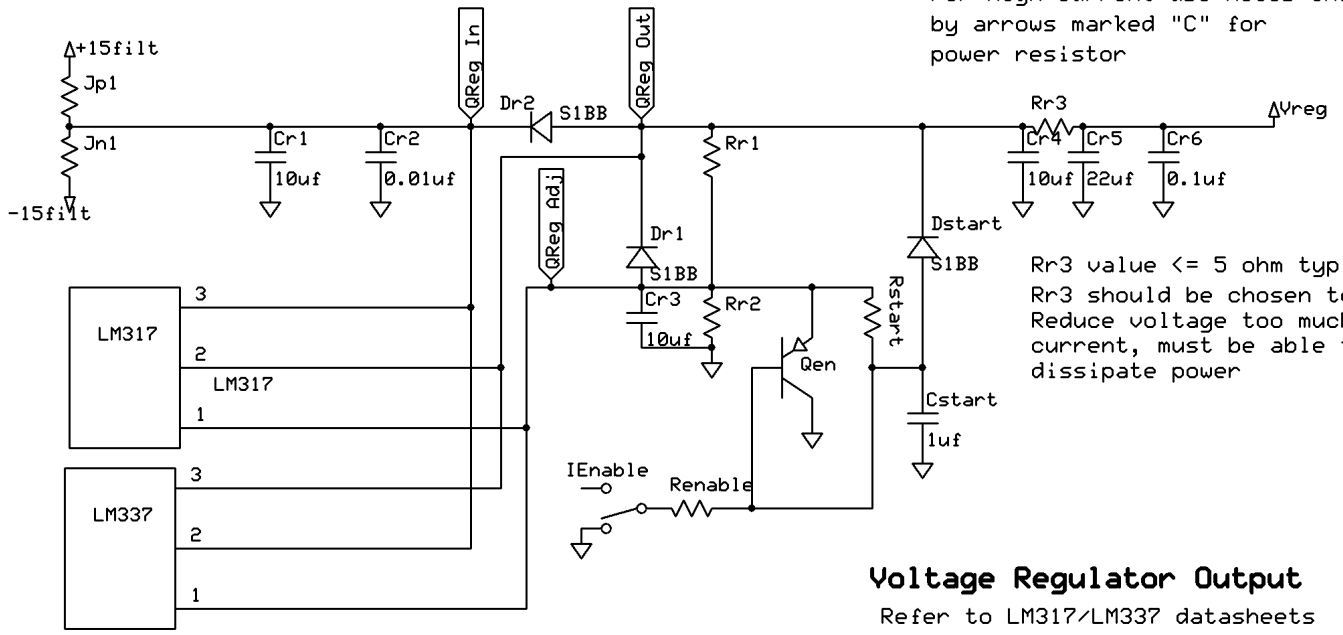
The arrows marked "A" on the pcb indicate holes for placing high current inductors in place of surface mount inductors

NOTE B:

For postive supply use LM317
For negative supply use LM337
For high current put TO-220 chips with heat sinks in holes indicated
Otherwise use surface mount

NOTE C:

For low current use surface mount resistor at indicated pad on board.
For high current use holes indicated by arrows marked "C" for power resistor



Rr3 value <= 5 ohm typically
Rr3 should be chosen to not Reduce voltage too much at max current, must be able to dissipate power

Voltage Regulator Output

Refer to LM317/LM337 datasheets to set values of Rr1 and Rr2.

Positive Supply

- Connect Jp jumpers, not Jn jumpers
- Install LM317, not LM337
- Connect diodes as shown
- Qen = MMBT2907A

Negative Supply

- Connect Jn jumpers, not Jp jumpers
- Install LM337 not LM317
- Reverse diode polarity
- Qen = MMBT2222A

In and out pins swapped for LM317 and LM337. Tab is Vout on LM317, Vin on LM337
Same pinout for MMBT2907A and MMBT2222A - no jumpers are needed

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