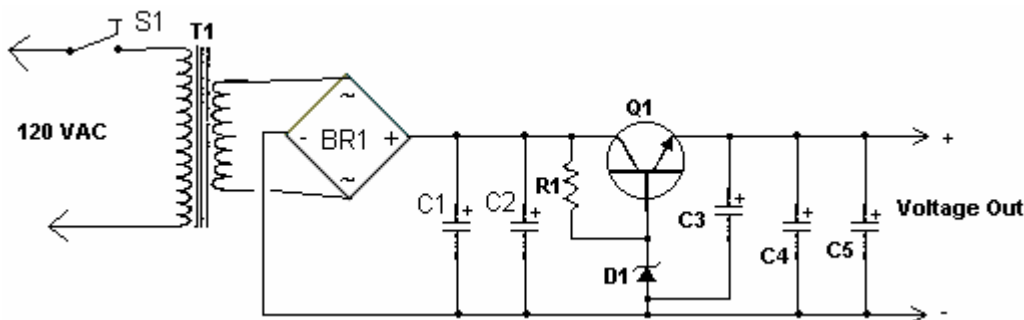


High Current Power Supply



It is a linear supply, which might have a few of you rolling your eyes, but it takes very few parts, is simple to build and can supply huge currents.

| Part | Description | Quantity |
|--------|--|----------|
| R1 | 680 Ohm 1/4 Watt Resistor | 1 |
| C1 | 20,000 - 50,000uF 20-40 Volt Capacitor | 1 |
| C2, C3 | 100uF 50 Volt Capacitor | 2 |
| C4 | 0.1uF 50 Volt Capacitor | 1 |
| C5 | 0.01uF 50 Volt Capacitor | 1 |
| D1 | Zener Diode* | 1 |
| Q1 | 2N3055 Or Other** | 1 |
| T1 | High Current Power Supply† | 1 |
| BR1 | Bridge Rectifier†† | 1 |
| S1 | SPST 250 VAC 10 A Switch | 1 |
| MISC | Case, Line Cord, Heatsink For Q1, Binding Posts For Output | 1 |

Notes:

1. D1 should be rated at about one volt higher than then desired output of the supply. A half watt diode will do.
2. Q1 can be a transistor similar to the 2N3055. I chose the 2N3055 for it's availability and power handling (150 watts).
3. T1 should be about 5 volts higher than the desired output of the supply, and rated for about one amp more of current. The voltage overhead is required by the regulator section. The extra current is to keep the transformer from over heating.
4. The choice of BR1 will depend on the voltage and current of your transformer. The rectifier should be rated for 50 volts more than the transformer, and 5 amps more than the transformer.
5. The value of R1 will be smaller when supplying high currents. Expiriment until you get what you need.
6. **Heatsink and fans are absolutely necessary!**