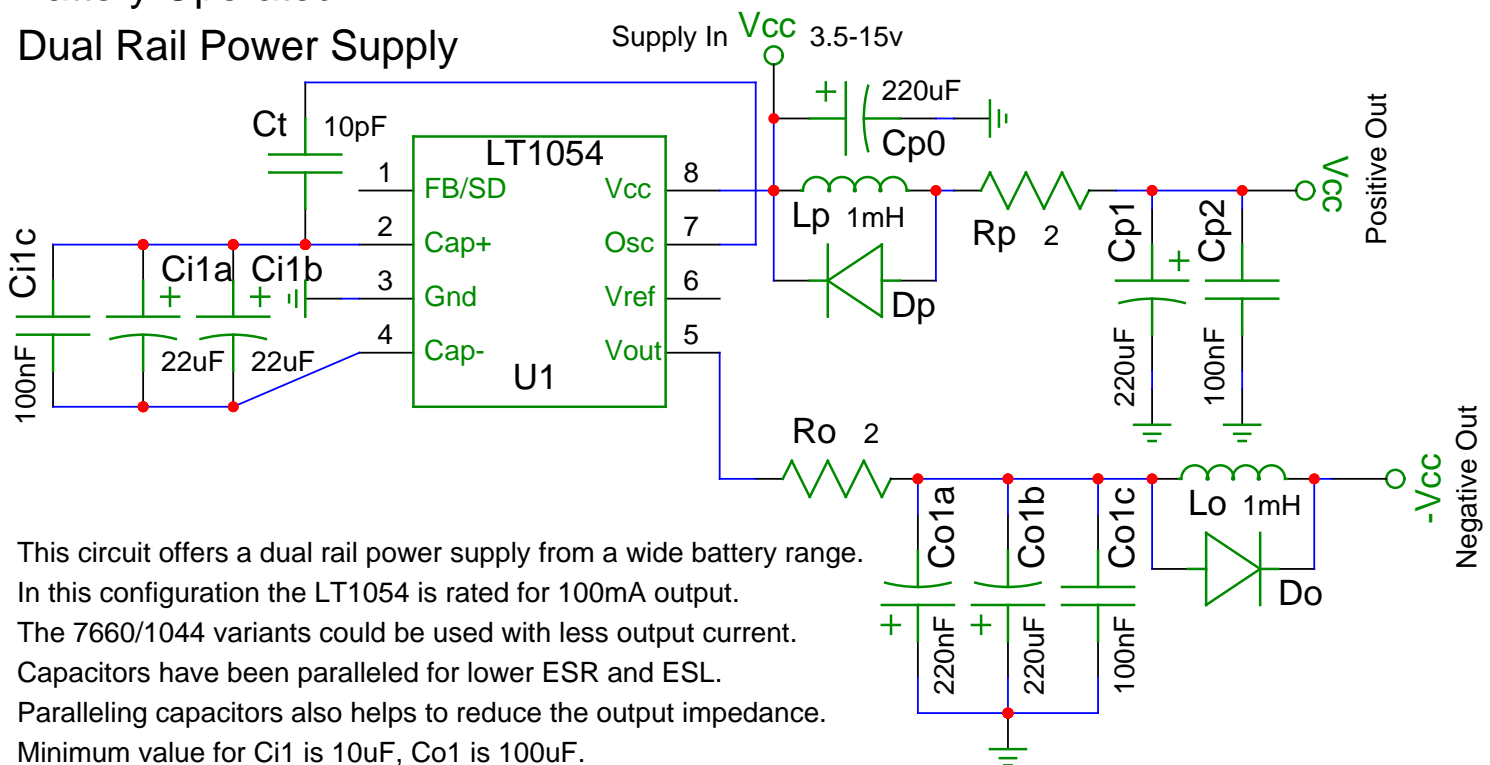


Battery Operated Dual Rail Power Supply

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This circuit offers a dual rail power supply from a wide battery range. In this configuration the LT1054 is rated for 100mA output. The 7660/1044 variants could be used with less output current. Capacitors have been paralleled for lower ESR and ESL. Paralleling capacitors also helps to reduce the output impedance. Minimum value for Ci1 is 10uF, Co1 is 100uF. Out to In ratio needs to stay 10:1. Ct increases the oscillator frequency to somewhere above 25kHz. The inductor+resistor filtering isn't necessary but will help with ripple. Options: Add a SPST on/off switch at Vcc input. Add a 15v zener on Vcc input to protect against over voltages. Add a wall wart connector and diode bridge with capacitor to allow for battery or wall power. Simple transistor floating regulators on the outputs may help reduce ripple at the expense of slightly lower voltage.