

BATTERY SPLITTER

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A common need in many systems is to obtain positive and negative supplies from a single battery. Where current requirements are small, the circuit shown is a simple solution. It provides symmetrical +&- output voltages, both equal to one half the input voltage. The output voltages are referenced to pin 3, output common. If the input voltage between pin 8 and pin 5 exceeds 6 V, pin 6 should also be connected to pin 3, as shown by the dashed line.

Higher current requirements are served by an LT1010 buffer. The splitter circuit can source or sink up to +&- 150mA with only 5mA quiescent current. The output capacitor, C2, can be made as large as necessary to absorb current transients. An input capacitor is also used on the buffer to avoid high frequency instability that can be caused by high source impedance.