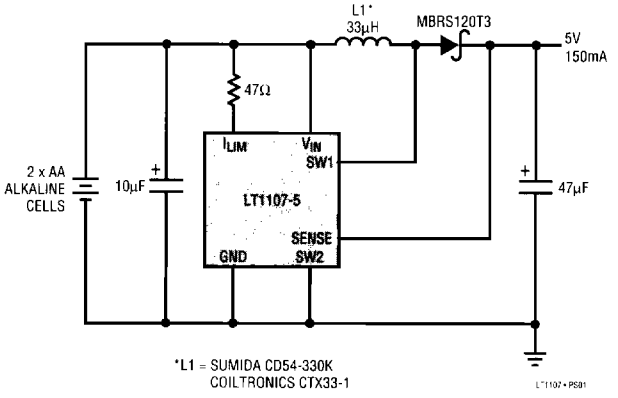
2-Cell DC/DC Converter Provides 5V at 150mA in All Surface Mount Solution

Converting battery voltages up to higher voltages at significant current levels normally requires a controller IC and an external transistor. The LT1107-5 integrated DC/DC converter can transform the voltage from a 2-cell battery (2V minimum) to 5V with a minimum of 150mA output current. The entire circuit shown here is surface mountable using low height (<5.0mm) components. Efficiency will be typically 84%, with standby current a low 450µA (max). A gain block is included on the chip to perform low battery detection. Applications ranging from PCMCIA cards to portable data-logging equipment can use the LT1107.

The LT1107 is available 8-lead DIP and SOIC packages.



Voltage Inverter Supplies 75mA at –5V

Many components such as op amps and A/D converters require both positive and negative supply voltage. Generating a regulated negative voltage can be a painful problem in board level design. The circuit shown will invert 5V to a regulated –5V with a minimum of 75mA output current. The LT1111-5 micropower DC/DC converter in 8-pin SOIC is accompanied by four other components in a compact all surface mount solution. This uncomplicated design produces a –5V, ±4% output with 100mV maximum ripple voltage.

The LT1111 is available in commercial (0°C to 70°C), industrial (–40°C to 105°C), and military (–55°C to 125°C) temperature ranges. Packaging includes 8-lead plastic and ceramic DIPs, as well as SOICs.