

ADVANCE INFORMATION

All information in this data sheet is preliminary and subject to change.

7/92

MAXIM

+12V, 25mA Flash Memory Programming Supply

MAX661

General Description

The MAX661 is a regulated +12V, 25mA-output, charge-pump DC-DC voltage converter. It provides the necessary +12V $\pm 5\%$ output to program byte-wide flash memories, and requires no inductors to deliver a guaranteed 25mA output from inputs as low as 4.75V. It fits into less than 0.2in^2 of board space.

The MAX661 is the first charge-pump boost converter to provide a regulated +12V output without using inductors. It requires only a few inexpensive, miniature capacitors, and the entire circuit is completely surface-mountable.

A logic-controlled shutdown pin that interfaces directly with microprocessors cuts supply current to only $1\mu\text{A}$. This device comes in 14-pin narrow SO and plastic DIP packages.

For higher-current flash memory programming solutions, refer to the MAX734 and MAX732 PWM switch-mode DC-DC converter data sheets. They have guaranteed output currents of 120mA and 200mA, respectively. Also refer to the MAX717-MAX721 data sheet for dual-output power-supply chips that integrate both main V_{CC} (3V/3.3V/or 5V) and auxiliary +12V flash memory power supplies on a single device and operate from 2V minimum inputs.

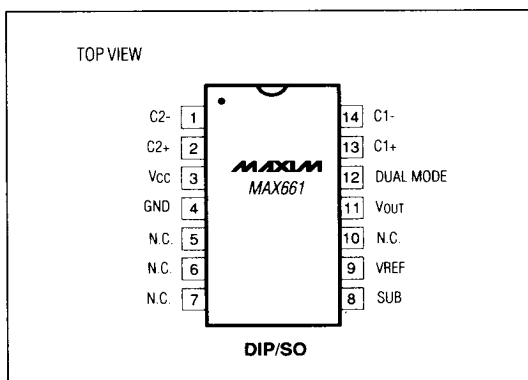
Applications

- +12V Flash Memory Programming Supplies
- Compact +12V Op-Amp Supplies
- Switching MOSFETs in Low-Voltage Systems

Features

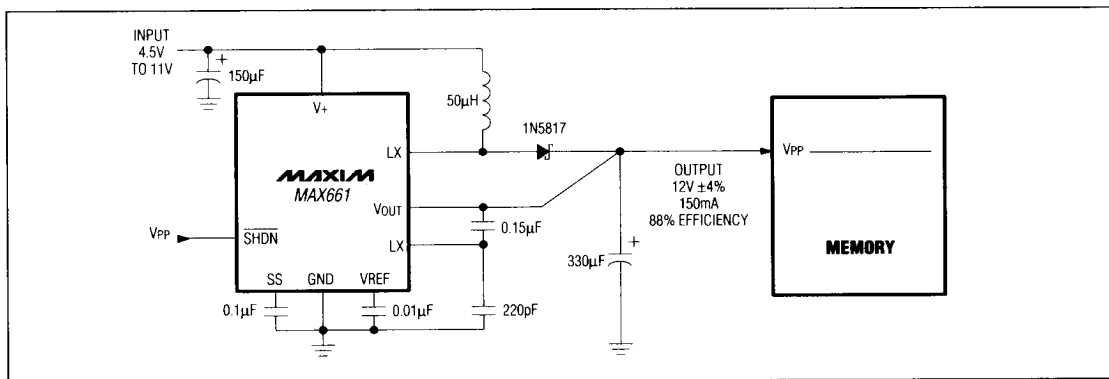
- ◆ Regulated +12V $\pm 5\%$ Output
- ◆ Fits in 0.2in^2
- ◆ Guaranteed 25mA Output Current
- ◆ No Inductors - Uses Only Capacitors
- ◆ 200mA Quiescent Supply Current
- ◆ Logic-Controlled $10\mu\text{A}$ Shutdown
- ◆ 14-Pin Narrow SO and Plastic DIP Packages

Pin Configuration



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Typical Operating Circuit



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