



Features

- Fixed 5V \pm 4% Output
- VIN Range: 2.8V to 4.5V
- Output Current: Up to 100mA (VIN \geq 2.8V)
Up to 250mA (VIN \geq 3.6V)
- Constant Frequency Operation at All Loads
- Low Noise Constant Frequency (400kHz) Operation
- Automatic Soft-Start Reduces Inrush Current
- Shutdown Current <1 μ A
- Short-Circuit Protection
- No Inductors
- Available in Low Profile 6-Lead SOT23 Package

Applications

- White LED Backlighting
- Li-Ion Battery Backup Supplies
- Local 3V to 5V Conversion
- Smart Card Readers
- PCMCIA Local 5V Supplies

Description

The HX4004 is a low noise, constant frequency (400kHz) switched capacitor voltage doubler. It produce a regulated output voltage from a 2.8V to 4.5V input. Low external parts count (one flying capacitor and two small bypass capacitors at VIN and VOUT) make the HX4004 ideally suited for small, battery-powered applications.

The HX4004 have thermal shutdown capability and can survive a continuous short circuit from VOUT to GND. Built-in soft-start circuitry prevents excessive inrush current during start-up.

High switching frequency enables the use of small ceramic capacitors. A low current shutdown feature disconnects the load from VIN and reduces quiescent current to <1 μ A.

The HX4004 is available in the industry standard SOT-23-6L power packages.