



Features

- Fixed 5V±4% Output
- VIN Range: 2.7V ~ 5V
- Output Current: up to 250mA ($V_{IN}=4.5V$)
- Low Noise Constant Frequency Operation
- Shutdown Current: <1μA
- Short-Circuit Protection
- Soft-start
- No Inductors
- Available in Low Profile 6-Lead SOT-23 Package

Applications

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

Description

The HX4002 is a low noise, constant frequency (1.2MHz) switched capacitor voltage doubler. It produces a regulated output voltage from 2.7V to 5V input with up to 250mA of output current. Low external parts count (one flying capacitor and two small bypass capacitors at VIN and VOUT) make the HX4002 ideally suited for small, battery-powered applications.

The new charge-pump architecture maintains constant switching frequency to no load and reduces both output and input ripple. The HX4002 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.

The HX4002 is available in the 6-pin SOT-23 package.