NCP6338

Synchronous Buck Converter, Processor Supply, I2C Programming, Remote Sense, 6.0 A

Product Overview

For complete documentation, see the data sheet.

The NCP6338 is a synchronous buck converter optimized to supply recent micro processors (ARM core processor, GPU) that demand high power at low voltages of portable applications powered by one cell Li-ion or three cell Alkaline/NiCd/NiMH batteries.
The device is able to deliver up to 6 A of programmable voltage ranging from 0.6 V to 1.4 V. Synchronous rectification and automatic PFM/PWM transition offer improved system efficiency. Operation at a 3 MHz switching frequency allows the use of small form factor external components.
The NCP6338 is in a space saving, low profile 2.06 x 2.46 mm CSP-30 package.

Features

- 2.3 V to 5.5 V Input Voltage Range
- 3 MHz Switching Frequency
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- Modular output strength drive
- Differential sense
- DVS support through I2C
- Enabling with pins or I2C
- IC access in off mode

Benefits

- Support Latest Battery
- Reduced output inductor and capacitor size
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- Optimized efficiency
- Compensates for PCB losses and processor acces resistor
- Optimizes processor power
- Flexible enabling and disabling
- Preprogramming at low power

Applications

- Battery powered applications power management
- Power supply for processor with low core voltage

End Products

- Cellular phones, smart phones, tablets and PDAs

Application Diagram