

Dual High-Efficiency PWM Step-Down DC-DC Converter

General Description

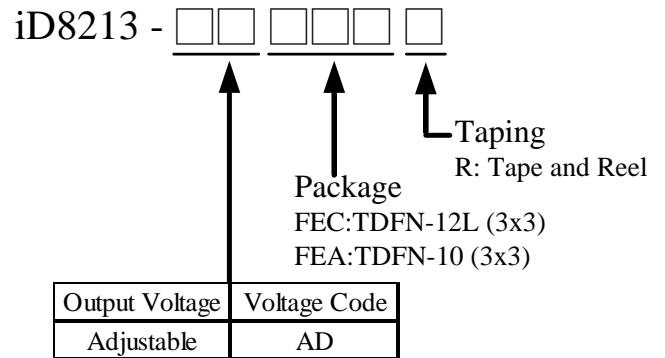
The iD8213 is a dual high efficiency Pulse Width Modulated (PWM) step-down DC-DC converter. It is capable of delivering 1.2A output current over a wide input voltage range from 2.6V to 5.5V, the iD8213 is ideally suited for portable electronic devices that are powered from 1-cell Li-ion battery or from other power sources within the range such as cellular phones, PDAs and other handheld devices.

Two operational modes are available: PWM/Low-Dropout auto-switch and shutdown modes. Internal synchronous rectifier with low $R_{DS(ON)}$ dramatically reduces conduction loss at PWM mode. No external Schottky diode is required in practical application.

The iD8213 enters Low-Dropout mode when normal PWM cannot provide regulated output voltage by continuously turning on the upper PMOS. The iD8213 enter shutdown mode and consumes less than $0.1\mu A$ when EN pin is pulled low.

The switching ripple is easily smoothed-out by small package filtering elements due to a fixed operation frequency of 1.5MHz. This along with small TDFN-12L and TDFN-10 package provides small PCB area application. Other features include soft start, lower internal reference voltage with 3% accuracy, over temperature protection, and over current protection.

Ordering Information



Applications

- Mobile Phones
- Personal Information Appliances
- Wireless and DSL Modems
- MP3 Players
- Portable Instruments

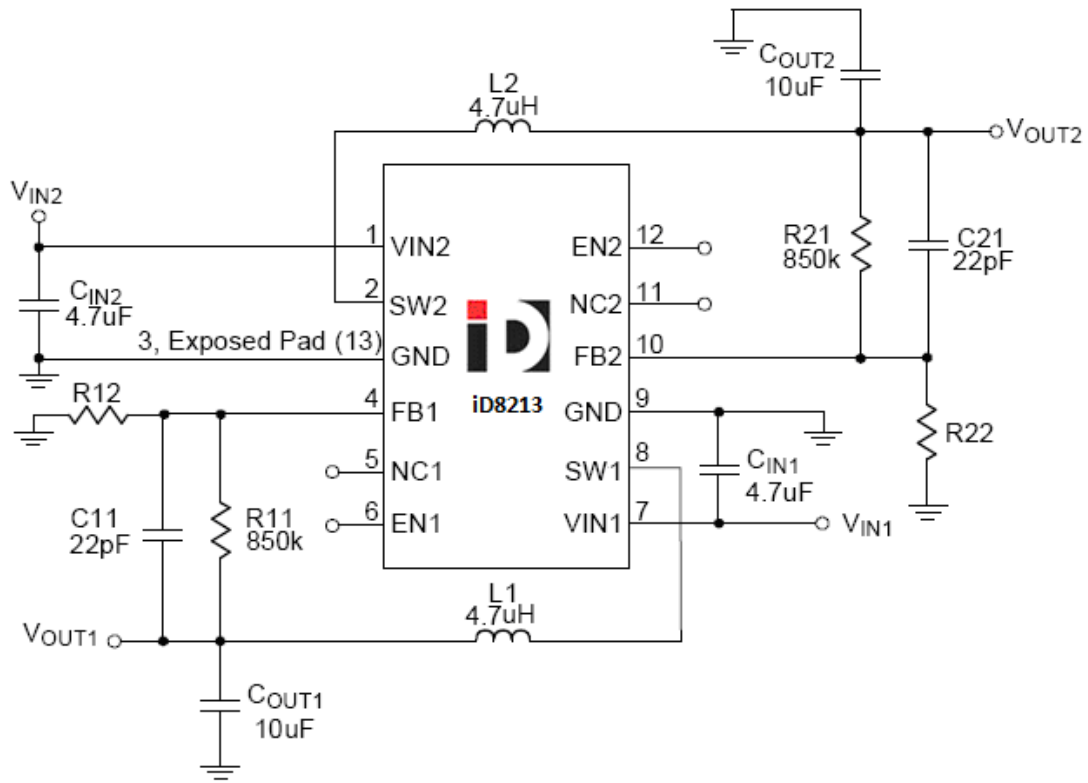
Features

- 2.6V to 5.5V Input Range
- Adjustable Output Voltage
- 1.2A Output Current per Channel
- 95% Efficiency
- No Schottky Diode Required
- $40\mu A$ Quiescent Current per Channel
- 1.5MHz Fixed-Frequency PWM Operation
- Small TDFN-12 and TDFN-10 Package
- RoHS Compliant and Green

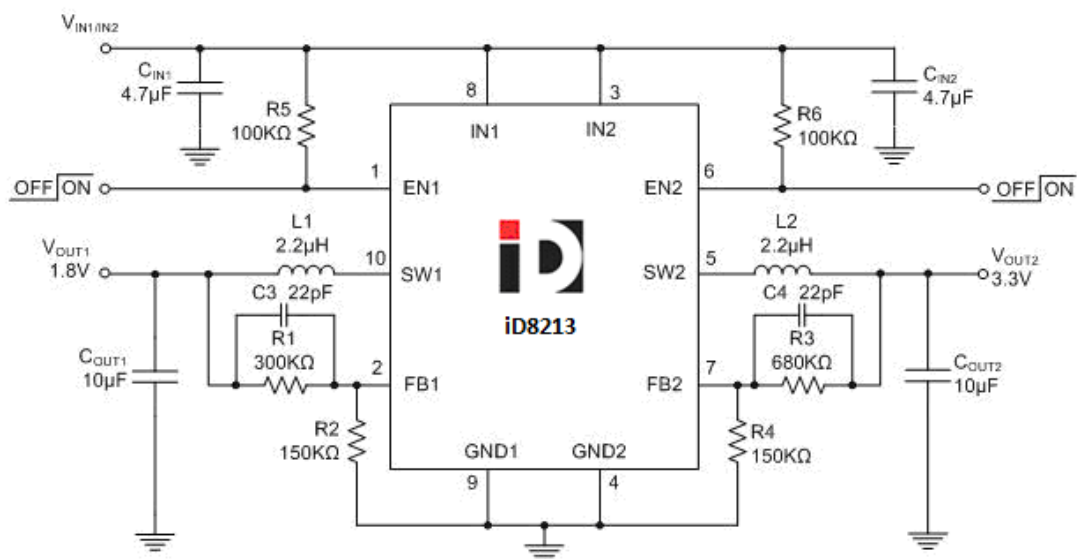
Marking Information

For marking information, please contact our sales representative directly or through distributor around your location.

Typical Application Circuit (Adjustable Operation)



TDFN-12L Package



TDFN-10 Package