

General Description

AS5415 is designed with high efficiency step down DC/DC converter for portable devices applications. It features with extreme low quiescent current with no load which is the best fit for extending battery life during the standby mode. The device operates from 2.5V to 5.5V input voltage and up to 1.5A output current capability. High 1.3MHz internal frequency makes small surface mount inductors and capacitors possible and reduces overall PCB board space. Further, build-in synchronous switch makes external Schottky diode is no longer needed and efficiency is improved. AS5415 is designed base on pulse width modulation (PWM) for low output voltage ripple and fixed frequency noise, low dropout mode provides 100% duty cycle operation. Low reference voltage is designed for achieving regulated output down to 0.6V.

The device is available in an adjustable version. The AS5415 is available in DFN-6 package.

Features

- Achieve 95% efficiency
- Input Voltage : 2.5V to 5.5V
- Output Current up to 1.5A
- Reference voltage 0.6V
- Quiescent Current 240 μ A with No Switching
- Internal switching frequency 1.3MHz
- No Schottky Diode needed
- Low Dropout Operation: 100% Duty Cycle
- Shutdown current < 1 μ A
- Excellent Line and Load Transient Response
- Over-current and Over-temperature Protection

Applications

- Blue-Tooth devices
- Cellular and Smart Phones
- Personal multi-media Player (PMP)
- Wireless networking
- Digital Still Cameras
- Portable applications

Typical Application (adjustable)

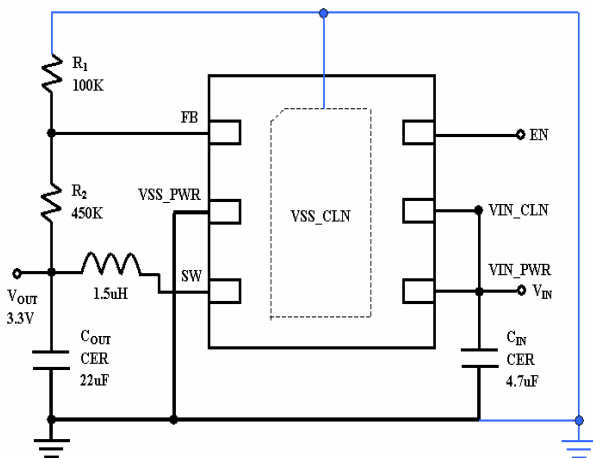


Fig. 1

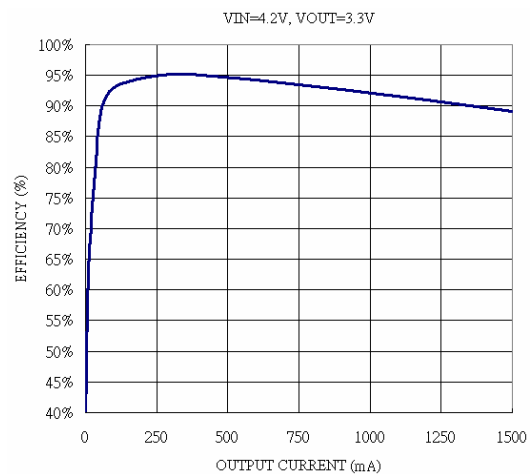


Fig. 2

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