

5V/600mA High Efficiency Synchronous Step-Down DC/DC Converter**Description**

The IT77101 is a high efficiency step-down DC/DC converter using a constant frequency, current mode architecture. The device integrates a main switch and a synchronous rectifier for high efficiency without an external schottky diode. Supply current during operation is only 160 μ A and drops to $\leq 1\mu$ A after shutdown. The IT77101 can supply 600mA of load current from 2.5V to 6.0V input voltage. The output voltage can be regulated as low as 0.6V.

The switching frequency is internally set at 1.2MHz, allowing the use of small surface mount inductors and capacitor. The IT77101 is available in a low profile TSOT23_5L/ SOT23_5L package.

Features

- High Efficiency up to 95%
- 160 μ A Low Quiescent Current (Active Mode)
- 2.5V to 6.0V Input Voltage Range
- 600mA Output Current
- Fixed Frequency Operation
- Allowable 0.6V Low Output Voltage
- Current Mode Operation
- Internal Soft-start
- Over-temperature Protection
- 0.1 μ A Shutdown Current
- TSOT23_5L/ SOT23_5L Small Package
- RoHS Compliant (100% Green Available)

Applications

- Cellular Telephone
- PDA and Smart Phone
- MP3 Player
- Microprocessor and DSP Core Supply
- Wireless and DSL Card
- Digital Still Camera
- Slim-Type DVD
- Portable Device

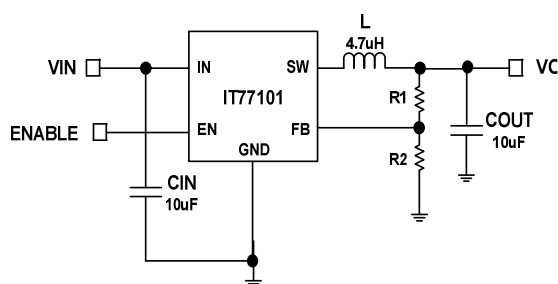
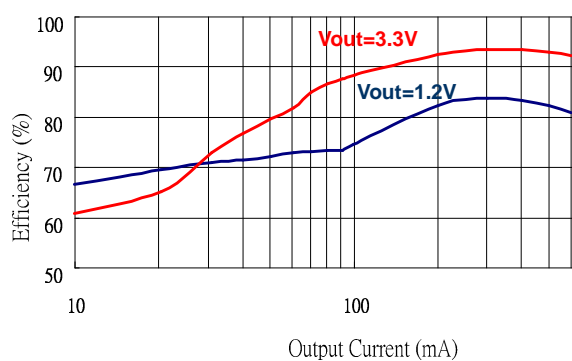
Typical Applications**Efficiency (Vin=5V)**

Figure 1. Typical Application Circuit