

### Description

The IT77117DF 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. The supply current during operation is 320µA only and will drop below 1µA after shutdown. The IT77117DF can supply 800mA 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.

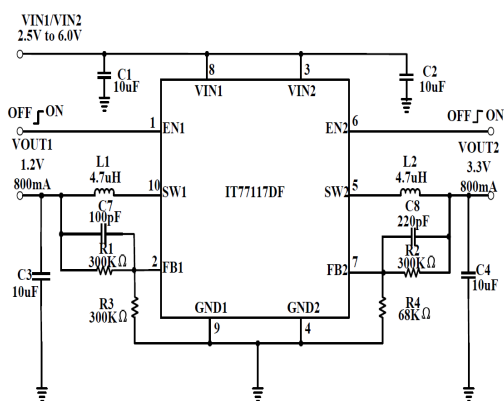
### Features

- High Efficiency up to 95%
- 320µA Low Quiescent Current (Active Mode)
- 2.5V to 6.0V Input Voltage Range
- 800mA Output Current on Each Channel
- Fixed Frequency Operation
- Allowable 0.6V Low Output Voltage
- Current Mode Operation
- Internal Soft-start
- Over-temperature Protection
- 0.1µA Shutdown Current
- DFN 10L 3x3 Small Package
- RoHS Compliant (100% Green Available)

### Applications

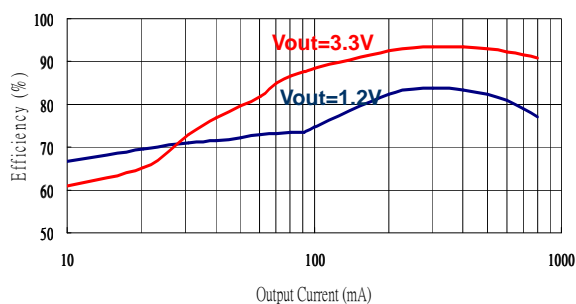
- Cellular Telephone
- PDA and Smart Phone
- MP3 Player
- Microprocessor and DSP Core Supply
- Wireless and DSL Card
- Digital Still Camera
- Slim-Type DVD
- Portable Device

### Typical Applications



**Figure 1. Typical Application Circuit**

**Efficiency (Vin=5V)**



**Efficiency (Vin=3.3V)**

