

23V/3A High Efficiency Synchronous Rectified Step-Down DC/DC Converter

DESCRIPTION

The IT76730M is a high efficiency synchronous step-down DC/DC converter series with 3A continuous output current supplied. Included on the substrate with the features listed is a high performance trans-conductance error amplifier that provides tight voltage regulation and accuracy under transient conditions. A built-in Under Voltage Lockout (UVLO) circuit is provided to prevent start-up until the input voltage reaches to 4.5V. In addition, it features over-current protection and thermal shutdown. To improve the light load efficiency, it is designed as the power saving mode (PSM) to minimize the switching loss by reducing the switching frequency. The IT76730M is available in SOP8_EP package.

FEATURES

- Input Voltage Supply Range from 4.5V to 23V
- Power Saving Mode (PSM) during the light Load Operation
- High Efficiency up to 93%
- Adjustable Output Voltage from 0.8V to 15V
- 3A Continuous Output Current
- 1MHz Constant Frequency Operation
- Current Mode Operation
- Programmable Soft-Start
- Over-temperature Protection
- Over-current Protection
- Input Under Voltage Lockout (UVLO)
- 10µA Shutdown Current
- SOP8_EP Package
- RoHS Compliant (100% Green Available)

APPLICATIONS

- Data comm. xDSL CPE Graphics Cards
- Set-Top-Box, DVD
- Servers/Networking
- DSP and FPGA Power Supply
- Telecomm Equipments
- DC-DC Regulator Modules
- LCD Monitor and LCD TV

TYPICAL APPLICATION



Figure 1. IT76730M Typical Operating Circuit