

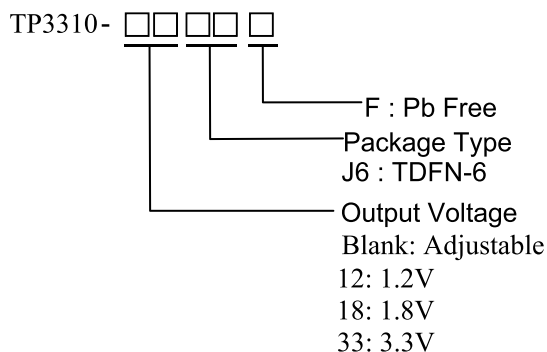
1.5MHz, 1.5A Synchronous Step-Down Converter with Soft Start

General Description

The TP3310 is a constant frequency, current mode, PWM step-down converter. The device integrates a main switch and a synchronous rectifier for high efficiency. The 2.5V to 5.5V input voltage range makes the TP3310 ideal for powering portable equipment that runs from a single cell Lithium-Ion (Li+) battery or 3-cell NiMH/ NiCd batteries. The output voltage can be regulated as low as 0.6V. The TP3310 supports up to 1.5A load current and can also run at 100% duty cycle for low dropout applications, extending battery life in portable systems.

Switching frequency is internally set at 1.5MHz, allowing the use of small surface mount inductors and capacitors. The internal synchronous switch increases efficiency while eliminates the need for an external Schottky diode. The TP3310 is available in an adjustable version and fixed output voltage of 1.2V, 1.8V and 3.3V.

Ordering Information



Marking Information

For marking information, contact our sales representative directly or through a TPmicro distributor located in your area.

Features

- High Efficiency up to 96%
- 1.5MHz Constant Switching Frequency
- 1.5A Available Load Current
- 270µA Typical Quiescent Current
- 2.5V to 5.5V Input Voltage Range
- Adjustable Output Voltage as Low as 0.6V
- 100% Duty Cycle Low Dropout Operation
- No Schottky Diode Required
- Short Circuit and Thermal Protection
- Excellent Line and Load Transient Response
- < 1µA Shutdown Current
- Soft Start Function
- Over Voltage Protection
- Available in 1.2V, 1.8V, 3.3V and Adjustable Voltages
- Available in TDFN-6 Package
- RoHS Compliant and 100% Lead(Pb)-Free

Applications

- GPS and PDA applications
- Portable Media Players/ MP3 Players
- Digital Still and Video Cameras
- Portable Instruments

Pin Configurations

