

High Efficiency 5A Synchronous Boost Convertor

General Description

The PN2267 is a high current, high efficiency Synchronous Boost Convertor with power Mosfets embedded and with output turn off true shutdown function for single cell Li-Ion and Li-polymer battery powered products. The PN2267 only consumes a 70 μ A (typ) quiescent current at no load, and operates in power save PFM mode under light load, which make it very suitable for Always-On applications. It operates in a 500-KHz fixed-frequency PWM mode at 500-KHz under medium to heavy load conditions. It features a current mode control for fast transient response with internal compensation. The PN2267 includes cycle-by-cycle current limit and over-temperature protection circuit. With the PN2267, a simple and flexible system design can be achieved, eliminating extra components, saving PCB space, and reducing BOM cost. The PN2267 is suitable for iPad-like computers, smart phones and portable handheld devices

The PN2267 is available in a SOP8-EP package. The operating temperature range is from -45 $^{\circ}$ C to +85 $^{\circ}$ C.

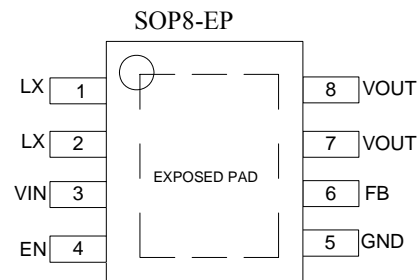
Applications

- Power Bank,
- Battery backup Units
- Battery Powered USB Hub
- Battery Powered Products
- Handheld devices Such as Smart Phone and Tablet PC

Features

- More than 93% Efficiency at $I_{out}=2A$ $V_{OUT} = 5V$ from 3.6V input Low 70 μ A Quiescent Current
- Guaranteed 3.0A Output Current at $V_{OUT} = 5V$ from 3.3V Input
- 500KHz PWM Switching Frequency
- Synchronous and Embedded Power Mosfets
- No Schottky Diode Required
- Internal Soft-Start to Limit Inrush Current
- Adjustable Output
- Output turn off true shutdown function
- Current Mode Operation with Internal Compensation
- For Excellent Line and Load Transient Response
- Overload/Short-Circuit Protection
- Shutdown Current <1 μ A
- Thermal Shutdown
- Compact SOP8-EP package

Package



Typical Application Circuit

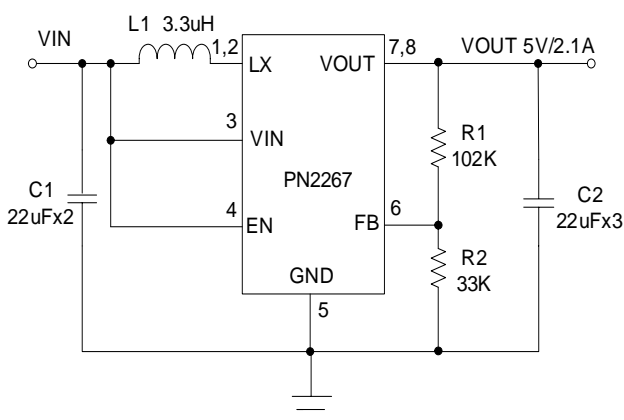


Figure 1 Typical Application Circuit

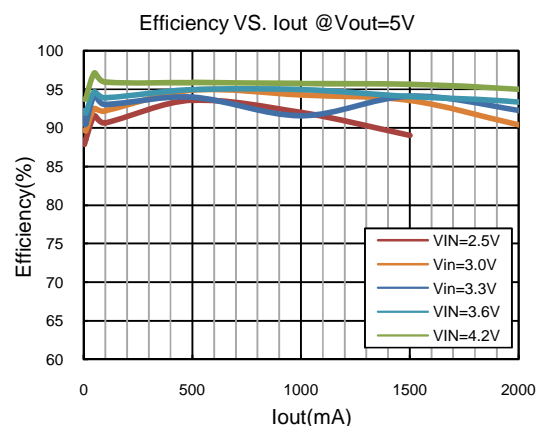


Figure 2 Typical Efficiency Curve