

Dual 1A, 2.25MHz Synchronous Step-Down DC/DC Regulator

DESCRIPTION

The EUP3402 is synchronous dual step-down DC-DC converters optimized for battery powered portable applications. It provides two independent output voltage rails powered by 1-cell Li-Ion or 3-cell NiMH/NiCD batteries. The device is also suitable to operate from a standard 3.3V or 5V voltage rail.

With an input voltage range of 2.7V to 5.5V, the EUP3402 is ideal to power portable applications like smart phones, PDAs and other portable equipment.

The EUP3402 operates at 2.25MHz fixed switching frequency allowing the use of small inductors and capacitors to achieve a small solution size. Each output supports up to 1A load current, typical. The internal synchronous switch increases efficiency and eliminates the need for an external schottky diode.

The EUP3402 has a user selectable mode of forced PWM and PFM/PWM mode. The forced PWM mode operation provides the lowest ripple noise and the PFM mode operation provides high efficiency at light loads.

The EUP3402 has internal soft start and avoids inrush current during startup. When shutdown, internal resistor discharges the output capacitor.

FEATURES

- High Efficiency Up to 95%
- 2.25MHz Constant Switching Frequency
- Dual 1A Available Load Current
- 45 μ A Typical Quiescent Current
- 2.7V to 5.5V Input Voltage Range
- 2 Channel 180 Degree Out of Phase Operation
- Adjustable Output Voltage as Low as 0.6V
- No Schottky Diode Required
- Short Circuit and Thermal Protection
- Power Good Output
- Internal Soft Start Function
- Available in 3mm \times 3mm TDFN-10 Package
- RoHS Compliant and 100% Lead(Pb)-Free Halogen-Free

APPLICATIONS

- SSD Module
- Smart Phones
- Tablet PC
- Portable Media Players
- μ C/ μ P, FPGA and DSP Power
- Plug-in DC/DC Modules for Routers and Switchers

Typical Application Circuit

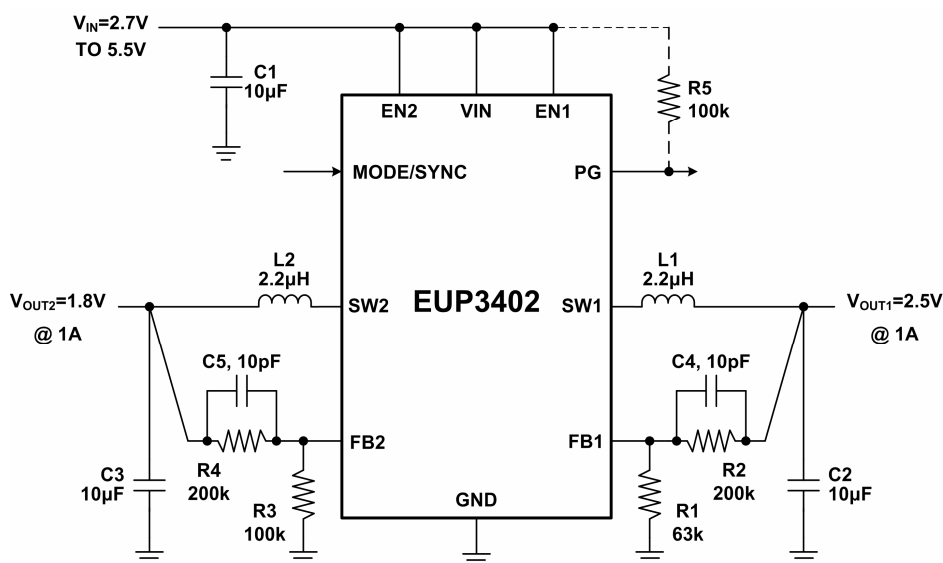


Figure 1.