

300mA Low-Noise LDO

Without Bypass Capacitor

DESCRIPTION

The EUP7913/A is an efficient CMOS low dropout (LDO) voltage regulator optimized for ultra-low-noise applications. It offers high output accuracy, extremely low dropout voltage, low ground current and fast start-up time. The EUP7913/A provides a very low noise output without a bypass capacitor, ideal for RF applications where a clean supply voltage source is required. Specifically designed for handheld and battery-powered devices, the EUP7913/A provides a TTL-logic-compatible enable pin. When the EUP7913/A is disabled, power consumption drops nearly to zero. Key features include current limit, thermal shutdown and faster transient response.

The EUP7913/A works with low-ESR ceramic capacitors. Available in the SOT23-3 or SOT23-5 space saving package which reduces the amount of board space necessary for power applications. The EUP7913/A offers wide fixed output voltage versions.

FEATURES

- 2.5V to 5.5V Input Voltage Range
- 30 μ V(rms) Output Noise
- 200mV Dropout @ 300mA
- 70dB PSRR at 1kHz No Bypass Capacitor
- Low 30 μ A Ground Current
- Guaranteed 300mA Output Current
- Stable with a 1 μ F Ceramic Output Capacitor When $V_{OUT} \geq 1.5V$, or 2.2 μ F when $V_{OUT} < 1.5V$
- Excellent Load/Line Transient
- Thermal Shutdown and Current Limit Protection
- Available 1.2V to 3.6V fixed output voltages (50mV increments)
- Space-Saving SOT23-3 & SOT23-5 Package
- RoHS Compliant and 100% Lead (Pb)-Free

APPLICATIONS

- Cellular Phones
- Camera Modules
- PDA and Palmtop Computers
- Consumer/Personal Electronics

Block Diagram

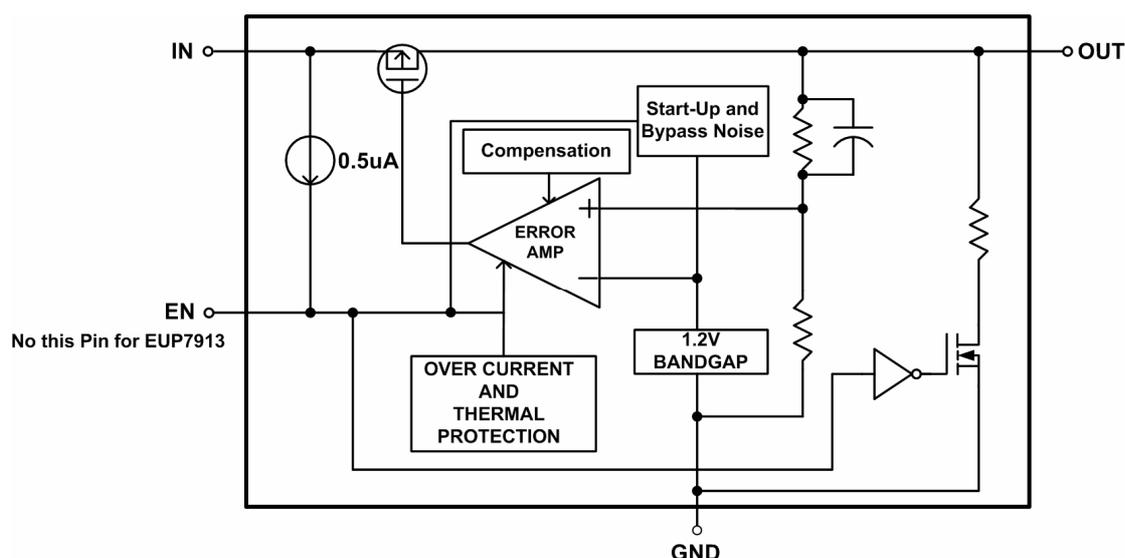


Figure 1.