

AT806

600mA Ultra Low Dropout Regulator



Immense Advance Tech.

FEATURES

- Typically 250mV dropout @600mA
- Input voltage range: 1.8V to 5.5V
- Enable function
- Over current and over temperature protection
- 5µA quiescent current in shutdown
- P-CH design to reduce the operation current
- Full industrial temperature range
- Adjustable output voltage range 0.8V to 5V
- Output voltage accuracy $\pm 2.0\%$
- Supply current typically 0.4mA

APPLICATION

- Notebook computers
- Battery powered systems
- Motherboards/Peripheral cards
- Telecom/Networking cards
- Industrial Applications
- Set top boxes
- Wireless infrastructure
- Medical equipment

DESCRIPTION

The AT806 is a high performance positive voltage regulator designed for use in applications requiring very low input voltage and very low dropout voltage at 600mA amps. It operates with a V_{IN} as low as 1.8V, with output voltage programmable as low as 0.8V. The AT806 features ultra low dropout, ideal for applications where V_{OUT} is very close to V_{IN} . Additionally, the AT806 has an enable pin to further reduce power dissipation while shut down. The enable pin may be tied to V_{IN} if it is not required for ON/OFF control. The AT806 provides excellent regulation over variations in line, load and temperature.

The adjustable output version that can be programmed from 0.8V to 5V with two external resistors.

The AT806 are available in SOP-8 package.

TYPICAL APPLICATION CIRCUITS

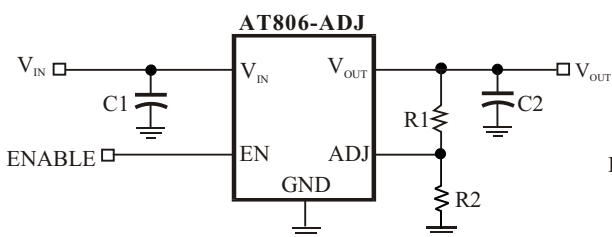


Figure 1. Adjustable Voltage Regulator

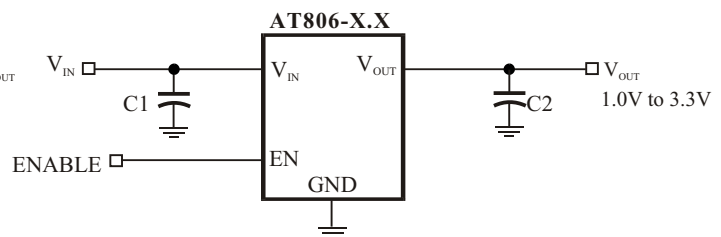


Figure 2. Fix Voltage Regulator

$$V_{OUT} = \frac{0.8V(R1+R2)}{R2} \text{ Volts}$$

