AT818

3.0A Ultra Low Dropout Regulator

Immense Advance Tech.

FEATURES

- Adjustable output from 0.8V
- Input Voltage as low as 1.8V
- Enable pin
- 250mV dropout @2A
- Over current and over temperature protection
- 5μA quiescent current in shutdown
- P-CH design to reduce the operation current
- Full industrial temperature range

APPLICATION

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

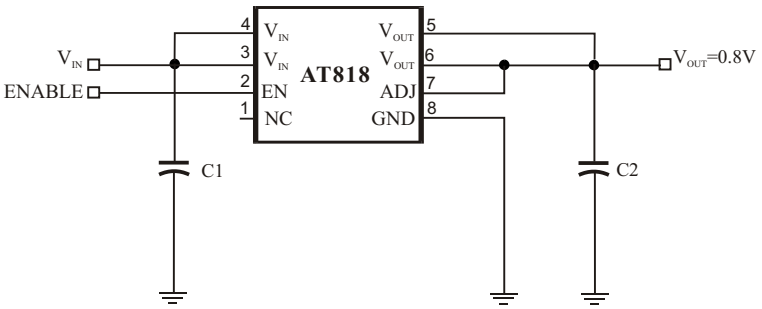
DESCRIPTION

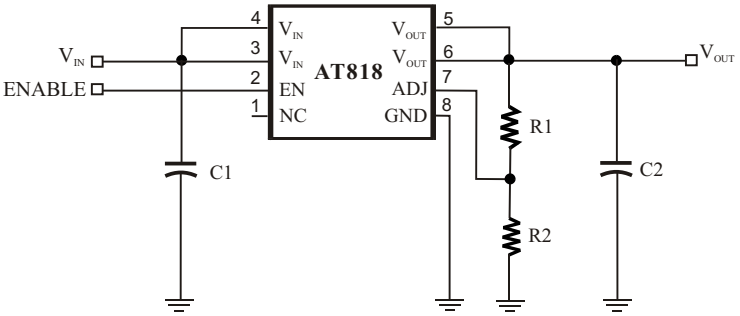
The AT818 is a high performance positive voltage regulator designed for use in applications requiring very low input voltage and very low dropout voltage at up to 3A amps. It operates with a V_{IN} as low as 1.8V, with output voltage programmable as low as 0.8V. The AT818 features ultra low dropout, ideal for applications where V_{OUT} is very close to V_{IN}. Additionally, the AT818 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 AT818 provides excellent regulation over variations in line , load and temperature.

The AT818 is available in the PSOP-8(Exposed Die Pad) package. The output can be programmed from 0.8V to 5V with two external resistive divider.

The optimum thermal condition has to consider the layout , placement and application to achieve it to satisfy high output current requirement.

TYPICAL APPLICATION CIRCUITS





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