

AT1808

1.5A Ultra Low Dropout Regulator



Immense Advance Tech.

FEATURES

- Adjustable output from 0.8V
- Input Voltage as low as 1.8V
- Enable Function
- 250mV dropout @1A
- Over current and over temperature protection
- 5µA quiescent current in shutdown
- P-CH design to reduce the operation current
- Full industrial temperature range
- V_{OUT} Power Good Signal

APPLICATION

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

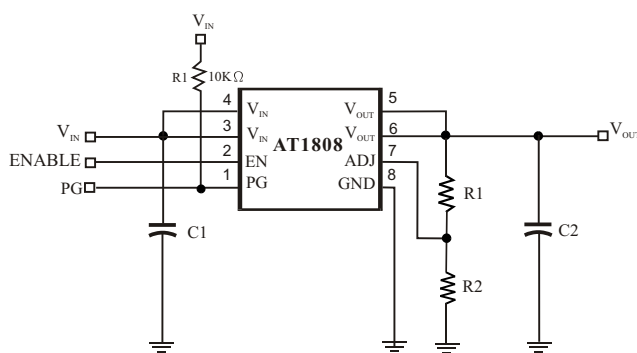
DESCRIPTION

The AT1808 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 1.5A amps. It operates with a V_{IN} as low as 1.8V, with output voltage programmable as low as 0.8V. The AT1808 features ultra low dropout, ideal for applications where V_{OUT} is very close to V_{IN}. Additionally, the AT1808 has an enable pin to further reduce power dissipation while shutdown. The enable pin may be tied to V_{IN} if it is not required for ON/OFF control. The AT1808 provides excellent regulation over variations in line, load and temperature. The AT1808 provides a Power Good signal to indicate if the voltage level of V_{OUT} reaches 92% of its rating value.

The optimum thermal condition has to consider the layout placement and application to achieve its satisfied high output current requirement.

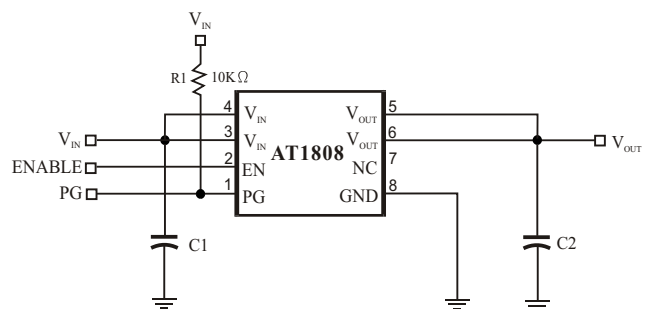
The AT1808 is available in SOP-8 and PSOP-8 packages.

TYPICAL APPLICATION CIRCUITS



Adjustable Version

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



Fixed Output Version

