

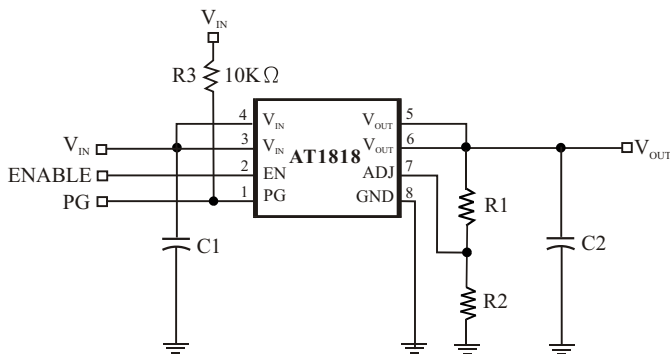
### FEATURES

- 250mV dropout @2A
- 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 ± 2%
- Supply current typically 0.4mA
- V<sub>OUT</sub> Power Good Signal

### APPLICATION

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

### TYPICAL APPLICATION CIRCUITS



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

### DESCRIPTION

The AT1818 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<sub>IN</sub> as low as 1.8V, with output voltage programmable as low as 0.8V. The AT1818 features ultra low dropout, ideal for applications where V<sub>OUT</sub> is very close to V<sub>IN</sub>. Additionally, the AT1818 has an enable pin to further reduce power dissipation while shut down. The enable pin may be tied to V<sub>IN</sub> if it is not required for ON/OFF control. The AT1818 provides excellent regulation over variations in line, load and temperature. The AT1818 provides a Power Good signal to indicate if the voltage level of V<sub>OUT</sub> reaches 92% of its rating value.

The AT1818 is available in the PSOP-8(Exposed Die Pad) package. The adjustable output version that can be programmed from 0.8V to 5V with two external resistors.

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

