

AT1084

5A Low Dropout Positive Voltage Regulator



Immense Advance Tech.

FEATURES

- Three-Terminal Adjustable or Fixed Output
- Output Current of 5A
- Low Dropout 1.3V at 5A Output Current
- Line Regulation: 0.04%
- Load Regulation: 0.2%
- Fast Transient Response
- OCP & OTP Protected

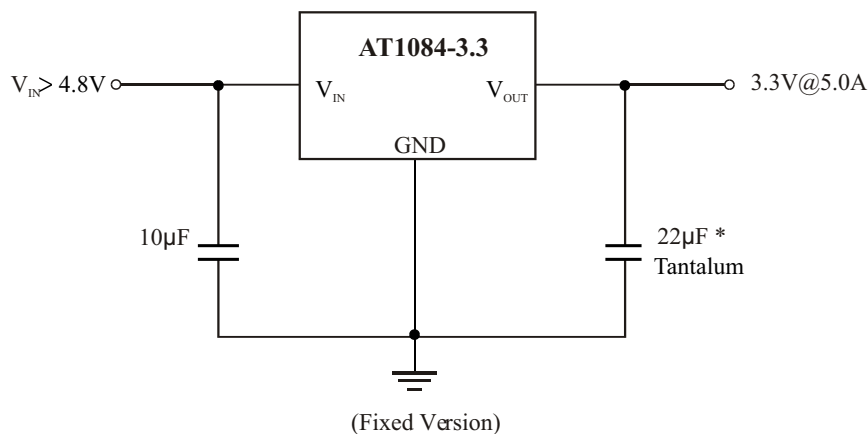
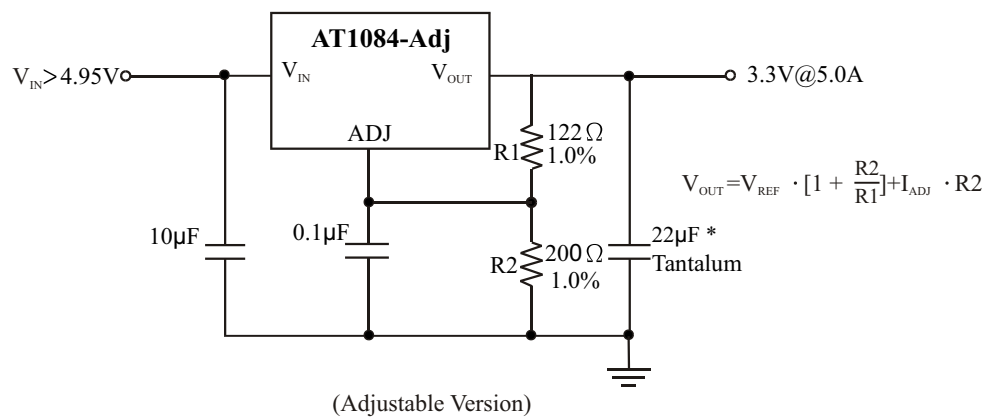
APPLICATION

- High Efficiency Linear Regulators
- Post Regulators for Switching Supplies
- Constant Current Regulators
- Battery Chargers

DESCRIPTION

The AT1084 series of positive adjustable regulators are designed to provide 5A with higher efficiency than currently available devices. All internal circuitry is designed to operate down to 1.3V input-to-output differential and the dropout voltage is fully specified as a function of load current. Dropout is guaranteed at a maximum of 1.5V at maximum output current, decreasing at lower load currents. On-chip trimming adjusts the reference voltage to 1%. Current limit is also trimmed, minimizing the stress on both the regulator and power source circuitry under overload conditions. The AT1084 devices are pin compatible with older three-terminal regulators. A 10 μ F output capacitor is required on these new devices. However, this is included in most regulator designs. Unlike PNP regulators, where up to 10% of the output current is wasted as quiescent current, the AT1084 quiescent current flows into the load, increasing efficiency.

TYPICAL APPLICATION CIRCUITS



* Required for Stability

