

Fast Ultra High-PSRR, Low-Noise, Low-Dropout, 500mA Micropower CMOS Linear Regulator

General Description

The AS2932 series is a family of CMOS linear regulators. It is consisted of AS2932 featuring ultra-high power supply rejection ratio, low output voltage noise, low dropout voltage, low quiescent current and fast transient response. It guarantees delivery of 500mA output current, and supports preset 1.2V, 1.5V, 1.8V, 2.5V, 2.7V, 2.8V, 3.0V, 3.3V output voltage versions.

Based on its low quiescent current consumption and its less than 0.1 μ A shutdown mode of logical operation, the AS2932 is ideal for battery-powered applications. It don't need bypass capacitor to reduce PCB size. The high power supply rejection ratio of the AS2932 holds well for low input voltages typically encountered in battery operated systems.

Additional features include regulation fault detection, bandgap voltage reference, constant current limiting and thermal overload protection. The AS2932 is Available in miniature 5-pin SOT-25, SOT23-3, SOT89-3, SC70-5,DFN-6 packages.

Features

- 2.0V to 6.0V Input Voltage Range
- 500mA guaranteed output current at $V_{out}=3.3V$
- 70dB typical PSRR at 1kHz
- 50 μ V RMS output voltage noise
- 100mV typical dropout at 100mA
- 50 μ A typical quiescent current
- less than 0.1 μ A typical shutdown mode
- Fast line and load transient response
- $\pm 2\%$ output voltage tolerance
- 1.2V to 5.0V Output Voltage Range
- Needless Bypass Capacitors

Applications

- Wireless handsets
- PCMCIA cards
- DSP core power
- Hand-held instruments
- Battery-powered systems
- Portable information appliances

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