

AT2722

2A 150KHz PWM Buck DC/DC Converter



Immense Advance Tech.

FEATURES

- 3.3V, 5V and Adjustable output versions
- Adjustable version output voltage range, 1.23V to 43V \pm 3% max over line and load conditions
- Guaranteed 2A output load current
- Requires only 4 external components
- Excellent line and load regulation specifications
- 150kHz fixed frequency internal oscillator
- TTL shutdown capability
- Low power standby mode, I_o typically 50 μ A
- High efficiency
- Uses readily available standard inductors
- Thermal shutdown and current limit protection
- Available in PSOP8 package

APPLICATION

- Pre-regulator for linear regulators
- High-efficiency step-down (buck) regulator
- On-card/board switching regulators
- Positive to negative converter
- Industry products: LCD TV / LCD monitor / CCTV / Network camera

DESCRIPTION

The AT2722 series of regulators are monolithic integrated circuits that provide all the active functions for a step-down (buck) switching regulator, capable of driving a 2A load with excellent line and load regulation. These devices are available in fixed output voltages of 3.3V, 5V and an adjustable output version.

Requiring a minimum number of external components, these regulators are simple to use and include internal frequency compensation, and a fixed-frequency oscillator. The AT2722 series operates at a switching frequency of 150 kHz thus allowing smaller sized filter components than what would be needed with lower frequency switching regulators. Available in a PSOP8 package.

A standard series of inductors are available from several different manufacturers optimized for use with the AT2722 series. This feature greatly simplifies the design of switch-mode power supplies.

Other features include a guaranteed \pm 3% tolerance on adjustable output voltage under specified input voltage and output load conditions, and \pm 15% on the oscillator frequency. External shutdown is included, featuring typically 50 μ A standby current. Self protection features include a two stage frequency reducing current limit for the output switch and an over temperature shutdown for complete protection under fault conditions.

The AT2722 is available in PSOP8 package.

TYPICAL APPLICATION CIRCUITS (Fixed Output Voltage Versions)

