

2A Ultra Low Dropout Voltage LDO Regulators with Soft-Start

DESCRIPTION

The MT7172 is an ultra-low dropout linear regulator capable of operating with an input voltage as low as 0.8V. It delivers up to 2A of output current with a typical dropout voltage of just 140mV. MT7172 uses a VBIAS supply to power its internal reference and control circuitry, while the output current is drawn directly from the VIN supply to ensure high efficiency regulation. MT7172 integrates many protection mechanisms to protect the device and downstream load connected to its output, including UVLO, over current protection and over temperature protection, it also integrates internal soft start feature to control output voltage slew rate and limit the inrush current during startup.

The MT7172 is stable with output capacitor greater than or equal to 2.2 μ F. The MT7172 is available in the DFN3x3_10L package.

FEATURES

- Ultralow VIN Range: 0.8V to 5.5V
- VBIAS Voltage Range: 2.7V to 5.5V
- VOUT Voltage Range: 0.8V to 3.6V
- $\pm 0.5\%$ Feedback Voltage Accuracy
- Internal Soft-Start Limits the Inrush Current
- Low Dropout: 140mV Typical at 2A, VBIAS = 5V
- PGOOD Indicator
- Stable with Any Output Capacitor $\geq 2.2\mu$ F
- Over-Current and Over-Temperature Protection
- DFN3x3_10L package

APPLICATIONS

- PCs, Servers, Modems, and Set-Top-Boxes
- FPGA Applications
- DSP Core and I/O Voltages
- Instrumentation
- Post-Regulation Applications
- Applications With Sequencing Requirements

TYPICAL APPLICATION

