

LT3070EUFD#PBF

Data Sheet

LDO Voltage Regulators 5A, Low Noise, Programmable Output, Very Low Dropout Linear Regulator

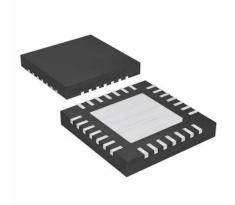
Manufacturers <u>Analog Devices, Inc</u>

Package/Case QFN-28

Product Type Power Management ICs

RoHS Pb-free Halide free

Lifecycle



Images are for reference only

Please submit RFQ for LT3070EUFD#PBF or <u>Emailto:s:sales@ovaga.com</u> We will contact you in 12 hours.

RFO

General Description

The LT3070 is a low voltage, UltraFastTM transient response linear regulator. The device supplies up to 5A of output current with a typical dropout voltage of 85mV. A $0.01\mu F$ reference bypass capacitor decreases output voltage noise to $25\mu VRMS$. The LT3070's high bandwidth permits the use of low ESR ceramic capacitors, saving bulk capacitance and cost. The LT3070's features make it ideal for high performance FPGAs, microprocessors or sensitive communication supply applications.

Output voltage is digitally selectable in 50mV increments over a 0.8V to 1.8V range. A margining function allows the user to adjust system output voltage in increments of $\pm 1\%$, $\pm 3\%$ or $\pm 5\%$. The IC incorporates a unique tracking function to control a buck regulator powering the LT3070's input. This tracking function drives the buck regulator to maintain the LT3070's input voltage to VOUT + 300mV, minimizing power dissipation.

Internal protection includes UVLO, reverse-current protection, precision current limiting with power foldback and thermal shutdown. The LT3070 regulator is available in a thermally enhanced 28-lead, $4mm \times 5mm$ QFN package.

Features

Output Current: 5A

Dropout Voltage: 85mV Typical

Digitally Programmable VOUT: 0.8V to 1.8V

Digital Output Margining: $\pm 1\%$, $\pm 3\%$ or $\pm 5\%$

Low Output Noise: 25µVRMS (10Hz to 100kHz)

Parallel Multiple Devices for 10A or More

Precision Current Limit: ±20%

Stable with Low ESR Ceramic Output Capacitors (15µF Minimum)

High Frequency PSRR: 30dB at 1MHz

Enable Function Turns Output On/Off

VIOC Pin Controls Buck Converter to Maintain Low Power Dissipation and Optimize Efficiency

PWRGD/UVLO/Thermal Shutdown Flag

Current Limit with Foldback Protection

Thermal Shutdown

28-Lead (4mm × 5mm × 0.75mm) QFN Package

Related Products



LT3763EFE

Analog Devices, Inc TSSOP28



LTC4417IUF

Analog Devices, Inc QFN-24



LTC1966CMS8#PBF

Analog Devices, Inc MSOP-8P



LTM8045EY#PBF

Analog Devices, Inc

BGA40



FPGA and DSP Supplies

ASIC and Microprocessor Supplies

Servers and Storage Devices

Post Buck Regulation and Supply Isolation



LT1038CK

Analog Devices, Inc TO-3



LTC3440EMS

Analog Devices, Inc

MSOP10



LTC2990IMS#PBF

Analog Devices, Inc

10MSOP



LT4295IUFD#PBF

Analog Devices, Inc

28-WFQFN