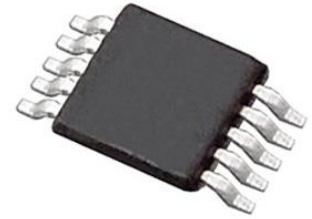


36V, 3.5A, 2.4MHz Step-Down Switching Regulator with 75 μ A Quiescent Current;
 Package: MSOP; No of Pins: 10; Temperature Range: -40°C to +125°C

Manufacturers	Analog Devices, Inc
Package/Case	MSOP10
Product Type	Power Management ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for LT3680EMSE#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours. [RFQ](#)

General Description

The LT3680 is an adjustable frequency (200kHz to 2.4MHz) monolithic buck switching regulator that accepts input voltages up to 36V. A high efficiency 95m Ω switch is included on the die along with a boost Schottky diode and the necessary oscillator, control, and logic circuitry. Current mode topology is used for fast transient response and good loop stability. Low ripple Burst Mode[®] operation maintains high efficiency at low output currents while keeping output ripple below 15mV in a typical application. In addition, the LT3680 can further enhance low output current efficiency by drawing bias current from the output when V_{OUT} is above 3V. Shutdown reduces input supply current to less than 1 μ A while a resistor and capacitor on the RUN/SS pin provide a controlled output voltage ramp (soft-start). A power good flag signals when V_{OUT} reaches 91% of the programmed output voltage. The LT3680 is available in 10-Pin MSOP and 3mm \times 3mm DFN packages with exposed pads for low thermal resistance.

Features

Wide Input Voltage Range: 3.6V to 36V

3.5A Maximum Output Current

Low Ripple (<15mVP-P) Burst Mode®

Adjustable Switching Frequency: 200kHz to 2.4MHz

Low Shutdown Current: $I_Q < 0.5\mu\text{A}$

Integrated Boost Diode

Synchronizable Between 250kHz to 2MHz

Power Good Flag

Saturating Switch Design: 95mΩ On-Resistance

0.790V Feedback Reference Voltage

Output Voltage: 0.79V to 30V

Thermal Protection

Soft-Start Capability

Small 10-Pin Thermally Enhanced MSOP and (3mm × 3mm) DFN Packages

Application

Automotive Battery Regulation

Power for Portable Products

Distributed Supply Regulation

Industrial Supplies

Wall Transformer Regulation

Related Products



[LT3763EFE](#)

Analog Devices, Inc
TSSOP28



[LT1038CK](#)

Analog Devices, Inc
TO-3



[LTC4417IUF](#)

Analog Devices, Inc
QFN-24



[LTC3440EMS](#)

Analog Devices, Inc
MSOP10



[LTC1966CMS8#PBF](#)

Analog Devices, Inc
MSOP-8P



[LTC2990IMS#PBF](#)

Analog Devices, Inc
10MSOP



[LTM8045EY#PBF](#)

Analog Devices, Inc
BGA40



[LT4295IUFD#PBF](#)

Analog Devices, Inc
28-WFQFN