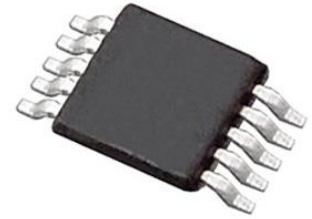


Linear Technology, LT3685EMSE#PBF Step-Down Switching Regulator 2A Adjustable, 0.79 20 V 10-Pin, MSOP

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



Images are for reference only

Please submit RFQ for LT3685EMSE#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The LT3685 is an adjustable frequency (200kHz to 2.4MHz) monolithic step-down switching regulator that accepts input voltages up to 38V operating and 60V maximum. An internal overvoltage protection circuit turns off the power switch when VIN is above 38V typical (36V minimum) which then allows the part to safely withstand 60V transients. A high efficiency 0.25Ω 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. The LT3685's high operating frequency allows the use of small, low cost inductors and ceramic capacitors resulting in low output ripple while keeping total solution size to a minimum. The low current shutdown mode reduces input supply current to less than 1μA while a resistor and capacitor on the RUN/SS pin provide a controlled output voltage ramp (soft-start). A power good flag signals when VOUT reaches 89% of the programmed output voltage. The LT3685 is available in 10-Pin MSOP and 3mm × 3mm DFN packages with exposed pads for low thermal resistance.

Features

Wide Input Range:

Operation From 3.6V to 36V

Overvoltage Lockout Protects Circuit through

60V Transients

2A Maximum Output Current

Adjustable Switching Frequency: 200kHz to 2.4MHz

Low Shutdown Current: $I_Q < 1\mu A$

Integrated Boost Diode

Synchronizable Between 250kHz to 2MHz

Power Good Flag

Saturating Switch Design: 0.25Ω On-Resistance

0.790V Feedback Reference Voltage

Output Voltage: 0.79V to 20V

Soft-Start Capability

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

Application

Automotive Battery Regulation

Set Top Box

Distributed Supply Regulation

Industrial Supplies

Wall Transformer Regulation

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



[LT1038CK](#)

Analog Devices, Inc
TO-3



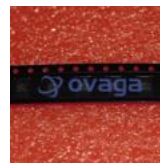
[LTC3440EMS](#)

Analog Devices, Inc
MSOP10



[LTC2990IMS#PBF](#)

Analog Devices, Inc
10MSOP



[LT4295IUFD#PBF](#)

Analog Devices, Inc
28-WFQFN