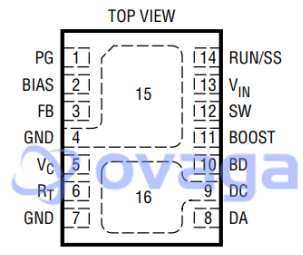


IC REG BUCK ADJ 2A 14DFN

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	DFN-14
Product Type	Power Management ICs
RoHS	
Lifecycle	



DE14MA PACKAGE  
14-LEAD (4mm x 3mm) PLASTIC DFN  
T<sub>JMAX</sub> = 125°C, θ<sub>JA</sub> = 43°C/W  
EXPOSED PAD (PIN 15) IS GND, MUST BE SOLDERED TO PCB  
EXPOSED PAD PIN 16 IS DC

Images are for reference only

Please submit RFQ for LT3681EDE#TRPBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours. [RFQ](#)

## General Description

The LT3681 is an adjustable frequency (300kHz to 2.8MHz) monolithic buck switching regulator that accepts input voltages up to 34V (36V maximum). A high efficiency 0.18Ω switch is included on the die along with a boost Schottky diode and the necessary oscillator, control, and logic circuitry. An undedicated power Schottky diode is integrated into the LT3681 to minimize the solution size. 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 LT3681 can further enhance low output current efficiency by drawing bias current from the output when V<sub>OUT</sub> is above 3V. Shutdown 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 V<sub>OUT</sub> reaches 90% of the programmed output voltage. The LT3681 is available in 14-Pin 4mm x 3mm DFN package with exposed pads for low thermal resistance.

## Features

Wide Input Voltage Range: 3.6V to 34V Operating, 36V Maximum

2A Maximum Output Current

Low Ripple Burst Mode® Operation 50µA IQ at 12VIN to 3.3VOUT Output Ripple < 15mVP-P

Adjustable Switching Frequency: 300kHz to 2.8MHz

Low Shutdown Current: IQ < 1µA

Integrated Boost Diode

Integrated Power Schottky Diode

Power Good Flag

Saturating Switch Design: 0.18Ω On-Resistance

1.265V Feedback Reference Voltage

Output Voltage: 1.265V to 20V

Soft-Start Capability

Small 14-Pin Thermally Enhanced (4mm x 3mm) DFN Package

## Application

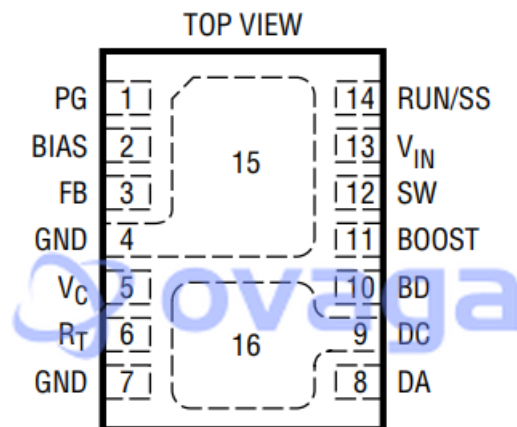
Automotive Battery Regulation

Power for Portable Products

Distributed Supply Regulation

Industrial Supplies

Wall Transformer Regulation



DE14MA PACKAGE

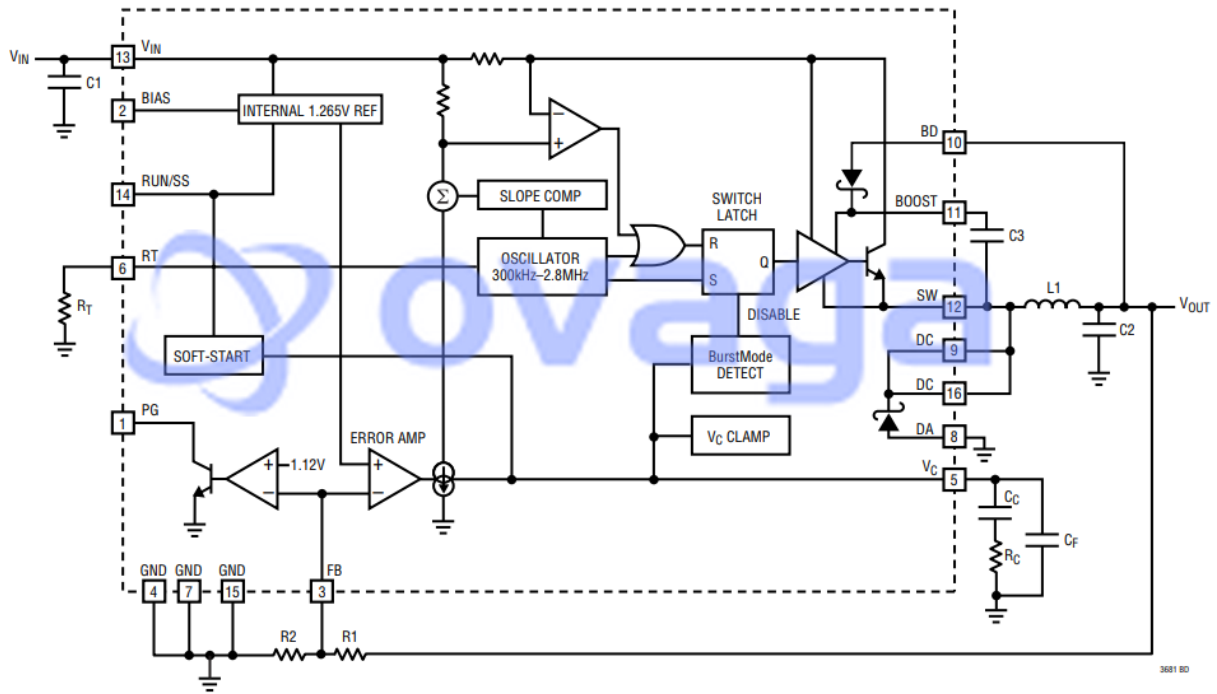
14-LEAD (4mm × 3mm) PLASTIC DFN

T<sub>JMAX</sub> = 125°C, θ<sub>JA</sub> = 43°C/W

EXPOSED PAD (PIN 15) IS GND, MUST BE SOLDERED TO PCB

EXPOSED PAD PIN 16 IS DC

# BLOCK DIAGRAM



## 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