

LTC4065EDC#TRMPBF

Data Sheet

Linear Battery Charger Li-Ion 500mA 4.2V 6-Pin DFN EP T/R

Manufacturers Analog Devices, Inc

Package/Case DFN-6P

Product Type Power Management ICs

RoHS Pb-free Halide free

Lifecycle

TOP VIEW

GND

GHRG

GHR

Images are for reference only

Please submit RFQ for LTC4065EDC#TRMPBF or <a href="mailto:Ema

RFO

General Description

The LTC4065 is a complete constant-current/constant-voltage linear charger for single-cell lithium-ion batteries. Its $2mm \times 2mm$ DFN package and low external component count make the LTC4065 especially well-suited for portable applications. Furthermore, LTC4065 is specifically designed to work within USB power specifications.

The CHRG pin indicates when charge current has dropped to ten percent of its programmed value (C/10). An internal timer terminates charging according to battery manufacturer specifications.

No external sense resistor or blocking diode is required due to the internal MOSFET architecture. Thermal feedback regulates charge current to limit the die temperature during high power operation or high ambient temperature conditions.

When the input supply (wall adapter or USB supply) is removed, the LTC4065 automatically enters a low current state, dropping battery drain current to less than 1μ A. With power applied, LTC4065 can be put into shutdown mode, reducing the supply current to less than 20μ A.

The full-featured LTC4065 also includes automatic recharge, low-battery charge conditioning (trickle charging), soft-start (to limit inrush current) and an open-drain status pin to indicate the presence of an adequate input voltage (LTC4065A only).

The LTC4065 is available in a tiny 6-lead, low profile (0.75mm) 2mm × 2mm DFN package.

Float Voltage (V)Charge Current RangePin 5 Is EN or ACPRTrickle ChargeLTC40654.2V40mA to 750mA ENYesLTC4065A4.2V40mA to 750mAACPRYesLTC4065-4.44.2V40mA to 750mA ENYesLTC4065L4.2V 8mA to 250mA ENYesLTC4065LX4.2V 8mA to 250mA ENYesLTC4065L-4.14.1V 8mA to 250mA ENYes

Features

Complete Linear Charger in 2mm × 2mm DFN Package

C/10 Charge Current Detection Output Timer Termination

Charge Current Programmable up to 750mA with 5% Accuracy

No External MOSFET, Sense Resistor or Blocking Diode Required

Preset 4.2V Float Voltage with 0.6% Accuracy

Constant-Current/Constant-Voltage Operation with

Thermal Feedback to Maximize Charging Rate Without Risk of Overheating

ACPR Pin Indicates Presence of Input Supply (LTC4065A Only)

Charge Current Monitor Output for Gas Gauging

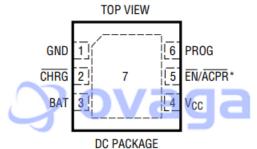
Automatic Recharge

Charges Single Cell Li-Ion Batteries Directly from USB Port

20µA Supply Current in Shutdown Mode

Soft-Start Limits Inrush Current

Tiny 6-Lead (2mm × 2mm) DFN Package

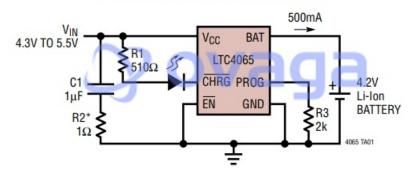


6-LEAD (2mm × 2mm) PLASTIC DFN

 $T_{\text{JMAX}} = 125^{\circ}\text{C}, \, \theta_{\text{JA}} = 60^{\circ}\text{C/W} \, (\text{NOTE 3})$

EXPOSED PAD (PIN 7) IS GND, MUST BE SOLDERED TO PCB *EN PIN 5 ON LTC4065EDC, ACPR PIN 5 ON LTC4065AEDC

Standalone Li-Ion Battery Charger



Application

Wireless PDAs

Cellular Phones

Portable Electronics

Ovaga Technologies Limited

Email: sales@ovaga.com

Related Products



LT3763EFE Analog Devices, Inc TSSOP28



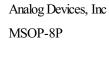
LTC4417IUF



Analog Devices, Inc QFN-24



LTC1966CMS8#PBF





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