

LTC4007EGN#PBF

Data Sheet

IC BATT CHARGER CTRLR 4A 24SSOP

Manufacturers Analog Devices, Inc

Package/Case SSOP-24

Product Type Power Management ICs

RoHS Pb-free Halide free

Lifecycle Images are for reference only

Please submit RFQ for LTC4007EGN#PBF or Email to us: sales@ovaga.com We will contact you in 12 hours.

RFO

General Description

The LTC4007 is a complete constant-current/constant-voltage charger controller for 3- or 4-cell lithium-ion batteries. The PWM controller uses a synchronous, quasi-constant frequency, constant off-time architecture that will not generate audible noise even when using ceramic capacitors. Charging current is programmable to $\pm 4\%$ accuracy using a programming resistor. Charging current can also be monitored as a voltage across the programming resistor.

The output float voltage is pin programmed for cell count (3 cells or 4 cells) and chemistry (4.2V/4.1V). A timer, programmed by an external resistor, sets the charge termination time. Charging is automatically restarted when cell voltage falls below 3.9V/cell.

LTC4007 includes a thermistor input, which suspends charging if an unsafe temperature condition is detected. If the cell voltage is less than 2.5V, a low-battery indicator asserts and can be used to program a trickle charge current to safely charge depleted batteries. The FAULT pin is also asserted and charging terminates if the low-battery condition persists for more than 1/4 of the total charge time.

LTC4007LTC4007-1Low battery threshold 4.2V cell2.5V3.25VLow battery threshold 4.1V cell2.44V3.173VRestartEnabledDisabledPackageSSOP-24QFN-24

Features

Complete Charger Controller for 3- or 4-Cell Lithium-Ion Batteries

High Conversion Efficiency: Up to 96%

Output Currents Exceeding 4A

Built-In Charge Termination for Li-Ion Batteries

AC Adapter Current Limiting Maximizes Charge Rate

Thermistor Input for Temperature Qualified Charging

Wide Input Voltage Range: 6V to 28V

0.5V Dropout Voltage; Maximum Duty Cycle: 98%

Programmable Charge Current: ±4% Accuracy

Indicator Outputs for Charging, C/10 Current Detection, AC Adapter Present, Low Battery, Input Current Limiting and Faults

Charging Current Monitor Output

Available in a 24-Pin Narrow SSOP 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



LT1038CK

TO-3

Analog Devices, Inc

LTC3440EMS

MSOP10

Analog Devices, Inc

Analog Devices, Inc 10MSOP

LTC2990IMS#PBF



LT4295IUFD#PBF

Analog Devices, Inc 28-WFQFN

Application

Notebook Computers

Portable Instruments

Battery-Backup Systems

Standalone Li-Ion Chargers