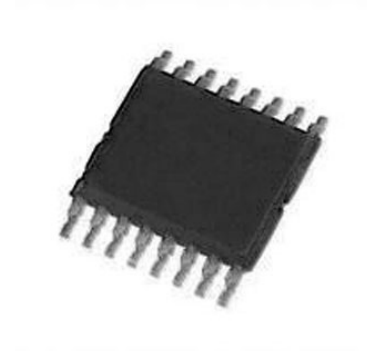


Linear Battery Charger NiCD/NiMH 2000mA -0.3V to 10.3V 16-Pin TSSOP EP Tube

Manufacturers	Analog Devices, Inc
Package/Case	TSSOP-16
Product Type	Power Management ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for LTC4060EFE#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The LTC4060 is a complete fast charging system for NiMH or NiCd batteries. Just a few external components are needed to design a standalone linear charging system.

An external PNP transistor provides charge current that is user programmable with a resistor. A small external capacitor sets the maximum charge time. No external current sense resistor is needed, and no blocking diode is required.

The IC automatically senses the DC input supply and battery insertion or removal. Heavily discharged batteries are initially charged at a C/5 rate before a fast charge is applied. Fast charge is terminated using the $-\Delta V$ detection method. Backup termination consists of a programmable timer and battery overvoltage detector. An optional external NTC thermistor can be used for temperature-based qualification of charging. An optional programmable recharge feature automatically recharges batteries after discharge.

Manual shutdown is accomplished with the SHDN pin, while removing input power automatically puts the LTC4060 into sleep mode. During shutdown or sleep mode, battery drain is $<1\mu A$.

The LTC4060 is available in both low profile (0.75mm) 16-pin $5mm \times 3mm$ DFN and 16-lead TSSOP packages. Both feature exposed metal die mount pads for optimum thermal performance.

Features

Complete Fast Charger Controller for Single, 2-, 3- or 4-Series Cell NiMH/NiCd Batteries

No Firmware or Microcontroller Required

Termination by $-\Delta V$, Maximum Voltage or Maximum Time

No Sense Resistor or Blocking Diode Required

Automatic Recharge Keeps Batteries Charged

Programmable Fast Charge Current: 0.4A to 2A

Accurate Charge Current: $\pm 5\%$ at 2A

Fast Charge Current Programmable Beyond 2A with External Sense Resistor

Automatic Detection of Battery

Precharge for Heavily Discharged Batteries

Optional Temperature Qualified Charging

Charge and AC Present Status Outputs Can Drive LED

Automatic Sleep Mode with Input Supply Removal

Negligible Battery Drain in Sleep Mode: $< 1\mu A$

Manual Shutdown

Input Supply Range: 4.5V to 10V

Available in 16-Lead DFN and TSSOP Packages

Application

Portable Computers, Cellular Phones and PDAs

Medical Equipment

Charging Docks and Cradles

Portable Consumer Electronics

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