

new product
information

LX2203 LI-ON BATTERY CHARGER

New Product Information and Sales Kit

Manufactured by:

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www.Microsemi.com

More than solutions – enabling possibilities

INTRODUCTION

CONFIDENTIAL INFORMATION

This new product introduction guide is intended for use only by Microsemi's sales people and authorized representatives and distributors. This material can be adapted for customer presentations, but the sales strategy and summary [pricing, availability, etc.] is confidential and should not be shown to customers.

DESCRIPTION

The LX2203 is a tiny 1A linear battery charger for Lithium Ion or Lithium Polymer batteries. The LX2203 includes built in MOSFET, accurate current and voltage regulation, reverse blocking protection, over temperature control, and charge status indicator. The accurate programmable charge current and independent termination current programming make it easy to logically reprogram the charge current limit at any time.

The LX2203 charges the battery in two phases: constant current and constant voltage. A reduced current conditioning mode is provided for deeply discharged batteries. The LX2203 automatically restarts if the battery voltage falls below the top-off threshold. The LX2203 enters a low quiescent current sleep mode when power is removed

The LX2203 is available in a small 3X3mm, 10 pin- MLP surface mount package.



KEY PRODUCT INFORMATION

BLOCK DIAGRAM

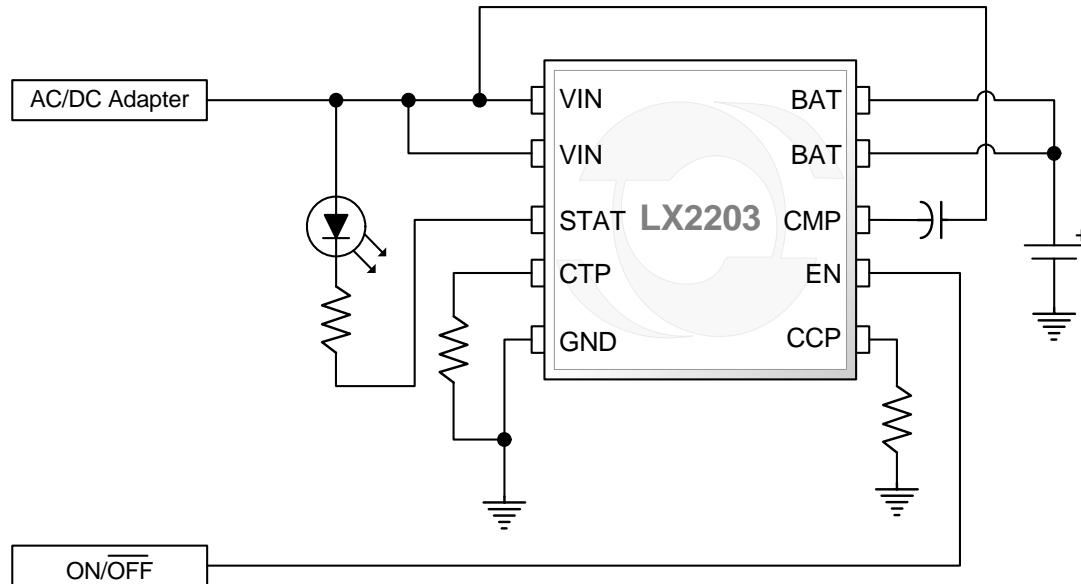


Figure 1 – LX2203 Block Diagram

KEY FEATURES

- 1A Charge Current
- Low drop out design
- Reverse leakage protection
- Linear thermal control loop
- Pre-charge conditioning
- Programmable termination current
- Small, 3X3 MLP package

APPLICATIONS

- MP3 players
- Cell Phones
- PDAs
- Charging Cradles
- Digital Cameras
- Low Cost Single Li-Ion Cell Chargers

TYPICAL APPLICATION

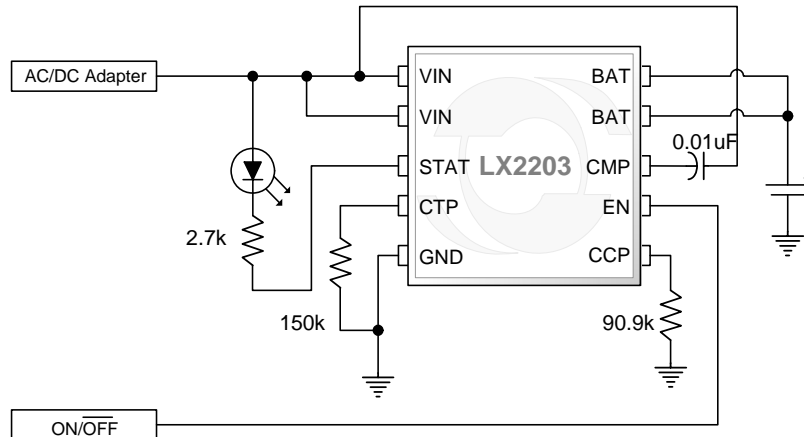


Figure 2 – Basic charger from Wall Adaptor with 1A constant current and 50mA termination current

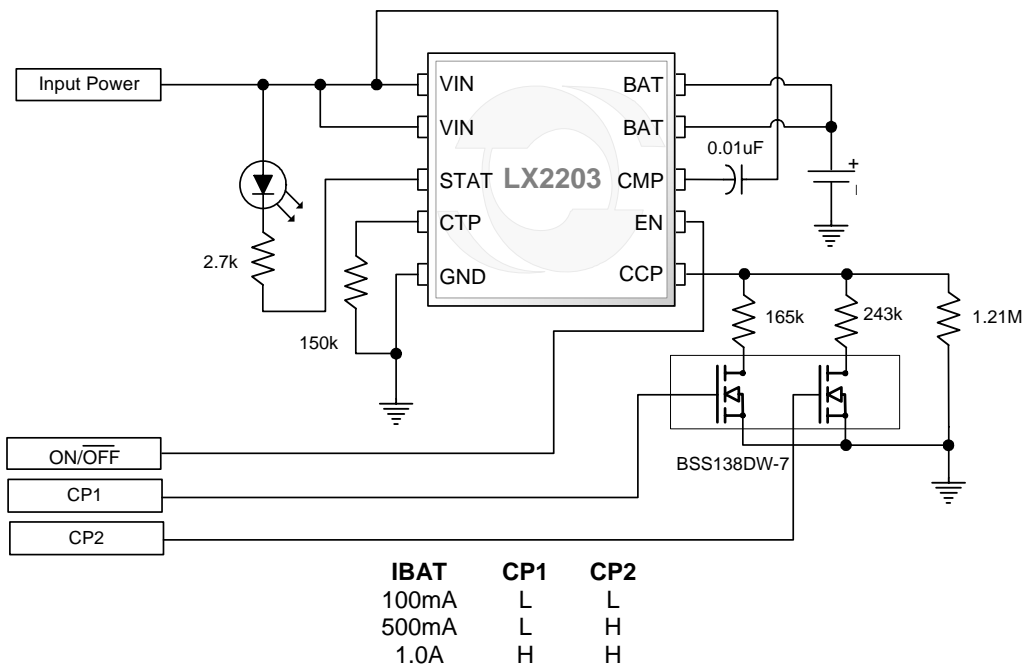


Figure 3 – Wall adapter and USB Charger (1A, 500mA, 100mA, selectable)

COMPETITIVE ANALYSIS

LX2203

Competitor	Device	Packaging	Charge Current	Built-in MOSFET	Vin	Power Management	Battery type
Microsemi	LX2203	10-Pin MLP	1A	YES	4.5V to 6V	Linear Thermal Cont. Loop	Li-On single cell. Optional Li-Poly
Maxim	MAX1874	16-Pin QFN	1A	YES	4.5V TO 6V with 18V protection	No	Li-On single cell
Semtech	SC801	16-Pin MLP	1.5A	YES	4.2V to 14V	n/a	Li-On, Li Polymer, NiCd, NiMH
	SC802		1A				
TI	BQ24010	10-PinMLP or QFN	1A	n/a	4.5V to 6.5V	YES	Li-On or Li-Polymer
	BQ24020						

Alternative Microsemi Solutions

Part	Note
LX2203A	Improved version of the LX2203; optimized for lower current applications.
LX2202	Has separate USB charger Input
LX2201	Replaced by LX2202

SALES STRATEGY

FIND SOCKET

- Portable handheld products such as: MP3 player, handheld game, CD player
- Single Li-On rechargeable products
- PDA
- GPS handheld products

POSITIONING

- High performance with 1A charge current
- Design support single USB charge connector for wall adaptor or USB host
- Cost effective with high volume consumer applications

IMPORTANT FACTS TO REMEMBER

- 1A Charge Current
- Selectable Li-Ion Battery, optional for Li-Polymer battery
- Internal built in MOSFET
- Linear thermal control loop
- Pre-charge conditioning
- Programmable termination current
- True Charge Indicator
- Topping Charge with Voltage Monitoring Mode
- Small 3X3 , 10 pin MLP package

Eligible for Registration



SUMMARY

Pricing

Device	Package	Industrial (-40 to 125°C)	
		DC	1000+
LX2203CLD	10 lead MLP	\$1.29	Consult Factory

Note:

Availability

Samples: NOW
Production: NOW

Options

Packages: 10-Pin MLP
Temperature: C Commercial 0 to 70°C

Technical Support

Datasheet: See WWW.Microsemi.com
Application Note: See LX2203 data sheet
Evaluation Board: LX2203EVAL

Factory Contacts

Technical Questions: Bruce Ferguson (714) 372-8094
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