



Single Cell Li-Ion Battery Linear Charger Accepting USB and AC-Adapter Power Sources

Features

- No External Power MOSFET, Sense Resistor or Blocking Diode Required
- 1% Regulation Voltage Accuracy
- Accepting USB and AC-Adapter Power Sources with Autonomous Power-Source Selection
- Overvoltage Lockout for Adapter and USB Input
- USB Control For Selectable 100mA and 500mA Charge Rate
- Programmable Charge Current Limit up to 1A From AC-adapter
- Automatic Recharge
- Complete Precharge, Constant Current, Constant Voltage and Charge Termination
- Charge Procedure with Safety Timer
- Support for 5V Power Supply Voltage
- Optional Power Good Indication (AC Adapter Present)
- Optional Battery Temperature Monitoring
- Internal Thermal Protection Circuit
- 3mm x 3mm TDFN Package

Applications

- MP3 Players
- Cellular Phones, Smartphone
- PDAs, Digital Cameras
- Hand-Held Devices

General Description

The G5880 series are a standalone linear Li-Ion battery charger with a complete precharge, constant current, and constant voltage charge loop. The G5880 series offer integrated two power source, USB-port and ac-adapter with autonomous power source selection, power MOSFET, charge status, high accuracy current and voltage regulation, and charge termination.

In the USB configuration, 100mA or 500mA of charge rates could be selected by ISET2. In the ac-adapter configuration, charge current can be set by an external resistance.

The charge voltage is regulated at 4.2V, and G5880 series charge cycle would be terminated automatically based on minimum current after the final regulation voltage is reached. An internal charge timer provides a backup safety for charge termination. Other features include undervoltage lockout, overvoltage lockout, over temperature protection and auto-recharge if the battery voltage falls below an internal threshold.

Ordering Information

| ORDER NUMBER | MARKING | TEMP. RANGE | PACKAGE (Pb free) |
|--------------|---------|---------------|-------------------|
| G5880RE1U | 5880 | -40°C ~ +85°C | TDFN3X3-10 |
| G5881RE1U | 5881 | -40°C ~ +85°C | TDFN3X3-10 |
| G5882RE1U | 5882 | -40°C ~ +85°C | TDFN3X3-10 |

Note:RE:TDFN3X3-10

1: Bonding Code

U: Tape & Reel

Pin Configuration

