

Single Cell Li-Ion Battery Linear Charger

Features

- No External Power MOSFET, Sense Resistor or Blocking Diode Required
- 1% Regulation Voltage Accuracy
- Programmable Constant Charge Current Limit up to 800mA
- Automatic Recharge
- Complete Pre-Charge, Constant Current, Constant Voltage and Charge Termination Charge Procedure
- Support for 5V Power Supply Voltage
- Internal Input Overvoltage Lockout Protection Circuit ($V_{IN} > 6.5V$)
- Internal Thermal Protection Circuit
- TSOT-23-5 Package

Applications

- MP3 Players
- Cellular Phones
- PDAs
- Hand-Held Devices

General Description

The G5806 is a standalone linear Li-Ion battery charger with a complete pre-charge, constant-current and constant-voltage charge loop.

No external power MOSFET, sense resistor and blocking diode is required due to internal power MOSFET architecture. The charge voltage is regulated at 4.2V, and the charge current is programmable by an external resistor. After the final regulation voltage is reached and the charge current drops to 1/10th the programmed charge current, the open drain NMOS \overline{CHRG} pin would be turn off automatically without terminating the charge loop.

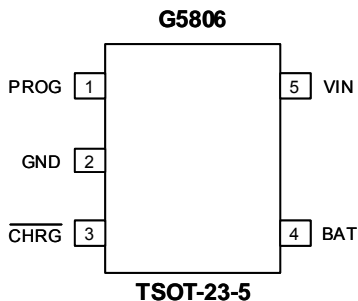
Other features include under voltage lockout, automatic recharge, over temperature protection and a charge status indication pin.

Ordering Information

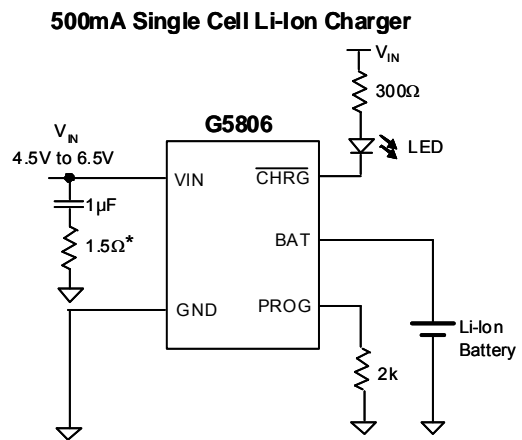
| ORDER NUMBER | MARKING | TEMP. RANGE | PACKAGE (Pb free) |
|--------------|---------|---------------|-------------------|
| G5806TO1U | 5806x | -40°C ~ +85°C | TSOT-23-5 |

Note: TO: TSOT-23-5
 1: Bonding Code
 U: Tape & Reel

Pin Configuration



Typical Application Circuit



*1.5Ω resistor in series with a ceramic capacitor will minimize the start-up voltage overshoot transients