

### Features

- Programmable Charge Current Up to 1A
- No MOSFET, Sense Resistor or Blocking Diode Required
- Constant-Current/Constant-Voltage Operation with Thermal Regulation to Maximize Charge Rate
- Charges Single Cell Li-Ion Batteries Directly from USB Port
- Preset 4.2V Charge Voltage with 1% Accuracy
- Automatic Recharge
- 2.8V Trickle Charge Threshold
- Available in SOP8-PP Package

### Description

The HX6021A is a complete constant current /constant voltage linear charger for single cell lithium-ion batteries. Its package and low external component count make the HX6021A ideally suited for portable applications. Furthermore, the HX6021A is specifically designed to work within USB power specifications.

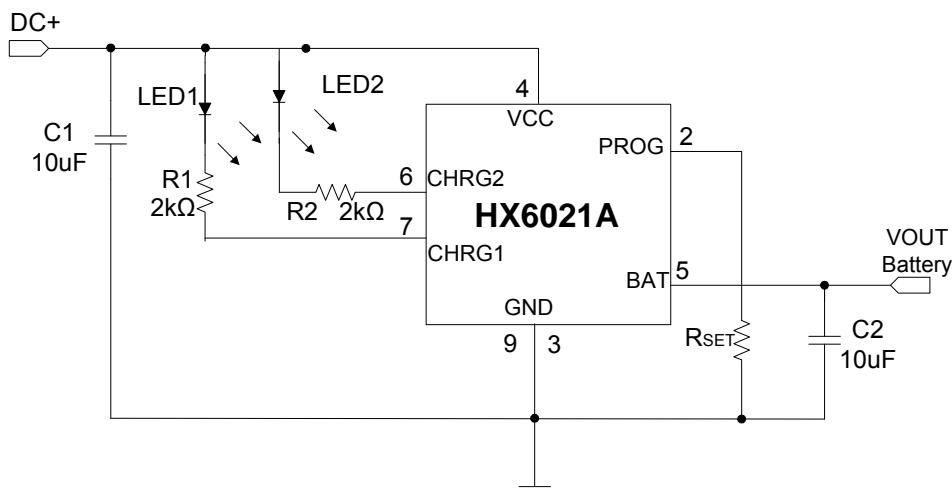
The charge voltage is fixed at 4.2V, and the charge current can be programmed externally with a single resistor. The HX6021A automatically terminates the charge cycle when the charge current drops to 1/10<sup>th</sup> the programmed value after the final float voltage is reached.

### Applications

- Charger for Li-Ion Coin Cell Batteries
- Portable MP3 Players, Wireless Headsets
- Multifunction Wristwatches
- Bluetooth Applications

The HX6021A converters are available in the industry standard SOP8-PP power packages (or upon request).

### Typical Application Circuit



\*  $I_{BAT} = (V_{PROG}/R_{SET}) * 900$

\* When charging in constant-current mode, the  $V_{PROG}$  is usually 1V.