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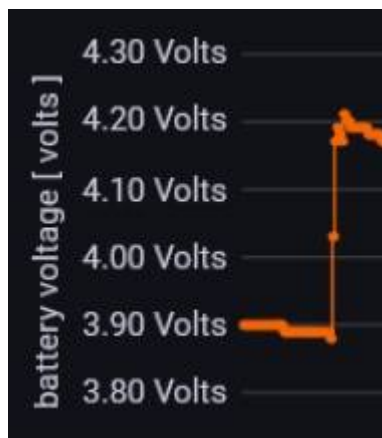
Grenzspannungen 3



Grenzspannungen

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- Untere Grenzspannung, bis Regulator abschaltet: 3.30 Volt (Entladelimit).
- Obere Grenzsspannung, bis Regulator abschaltet: 4.21 Volt (Aufladelimit).



Lade IC

bq21040 0.8-A, Single-Input, Single Cell Li-Ion and Li-Pol Battery Charger

1 Features

- Charging
 - 1% Charge Voltage Accuracy
 - 10% Charge Current Accuracy
 - Low Battery Leakage Current (1 μ A)
 - Programmable Charge Current using External Resistor up to 800 mA
 - 4.2-V Li-Ion and Li-Pol Charger
- Protection
 - 30-V Input Rating; with 6.6-V Input Overvoltage Protection
 - Input Voltage Dynamic Power Management
 - 125°C Thermal Regulation; 150°C Thermal Shutdown Protection
 - OUT Short-Circuit Protection and ISET Short Detection
 - Overtemperature Sensing Protection Through NTC
 - Fixed 10-Hour Safety Timer
- System
 - Status Indication – Charging/Done
 - Available in Small SOT-23 Package

3 Description

The bq21040 device is a highly integrated Li-Ion and Li-Pol linear battery charger device targeted at space-limited portable applications. The device operates from either a USB port or AC adapter. The high input voltage range with input overvoltage protection supports low-cost unregulated adapters.

The bq21040 has a single power output that charges the battery. A system load can be placed in parallel with the battery as long as the average system load does not keep the battery from charging fully during the 10 hour safety timer.

The battery is charged in three phases: conditioning, constant current and constant voltage. In all charge phases, an internal control loop monitors the IC junction temperature and reduces the charge current if an internal temperature threshold is exceeded.

The charger power stage and charge current sense functions are fully integrated. The charger function has high accuracy current and voltage regulation loops, charge status display, and charge termination. The pre-charge current and termination current threshold are fixed to 20% and 10%, respectively. The fast charge current value is programmable through an external resistor.

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