Advanced 1A Linear Charge Management Controllers

DESCRIPTION

The TP4057 is a highly advanced Lithium-Ion (Li-Ion) and Lithium–Polymer (Li-Pol) linear charge management controller for use in cost sensitive and portable applications. It combines high accuracy constant-current and constant-voltage regulation, cell preconditioning, temperature monitoring, automatic charge termination, charge-status indication, in a space-saving MSOP-8 package.

The TP4057 applies a constant current up to 1A to the battery and the charge current can be programmed externally with a sense-resistor.

The TP4057 automatically terminates the charge cycle when the charge current drops to the charge termination threshold (I_{TERM}) after the charge-regulation voltage is reached.

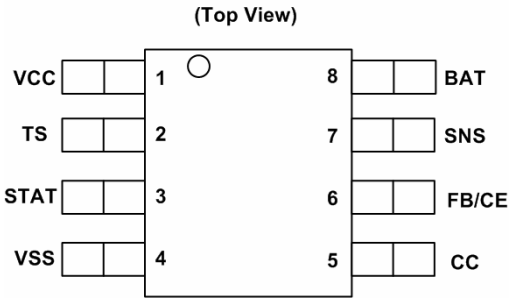
When the input supply is removed , the TP4057 automatically enters a low-power sleep mode. A battery charge state output pin is provided to indicate battery charge status through a display LED. The battery charge status output is a serial interface which may also be read by a system microcontroller.

Ordering Information

TP4057-□□□□

- F : Pb-Free
- Package Type
  M : MSOP-8
- Voltage Output
  42 : 4.2V
  84 : 8.4V

Pin Configurations



FEATURES

- 4.5V-15V Wide Input Voltage Range
- Ideal for Single Cell (4.1V or 4.2V) and Dual-Cell (8.2V or 8.4V) Li-Ion or Li-Pol Batteries
- Preset Charge Voltage with ±1% Accuracy
- Programmable Charge Current up to 1A
- Constant-Current/Constant Voltage Operation
- Preconditioning of Low Voltage Cells
- Optional Cell-Temperature Monitoring Before and During Charge
- Charge Status Output for Single of Dual Led or Host Processor Interface
- Automatic Battery Recharge
- Charge Termination by Minimum Current
- Automatic Low-Power Sleep Mode When Input Power is Removed
- Available in MSOP-8 Package
- RoHS Compliant and 100% Lead (Pb)-Free

APPLICATIONS

- Cellular Phones / PDAs/ MP3 Players/DSC
- Handheld Instruments

Marking Information

For marking information, contact our sales representative directly or through a TPmicro distributor located in your area.