

16V/1A Fully Integrated Linear Charger for 1 Cell Li-ion Battery

DESCRIPTION

ETA4054 is a single cell, fully integrated constant current (CC)/constant voltage (CV) Li-ion battery charger. Its compact package with minimum external components requirement makes the ETA4054 ideal for portable applications. No external sense resistor or blocking diode is necessary for the ETA4054. Build-in thermal feedback mechanism regulates the charge current to control the die temperature during high power operation or at elevated ambient temperature. The ETA4054 has a pre-charge function for trickle charging deeply discharged batteries. The fast charge current can be programmed by an external resistor. CV regulation mode is automatically enabled once the battery's charging curve reaches the constant voltage portion. The output current then decays and is finally terminated once the charge current drops to 1/10th of the programmed value. The ETA4054 keeps monitoring the battery voltage and enables a new charge cycle once the voltage drops by 150mV below the CV value.

ETA4054 is in a tiny SOT23-5 package.

FEATURES

- ◆ 16V standoff input voltage at VIN and BAT pins
- ◆ 4.2V charge termination voltage
- ◆ Charge current up to 750mA in SOT23-5 package
- ◆ No damage when battery reversely connected
- ◆ 25uA supply current when standby
- ◆ Soft-start limits in-rush current
- ◆ SOT23-5 Package

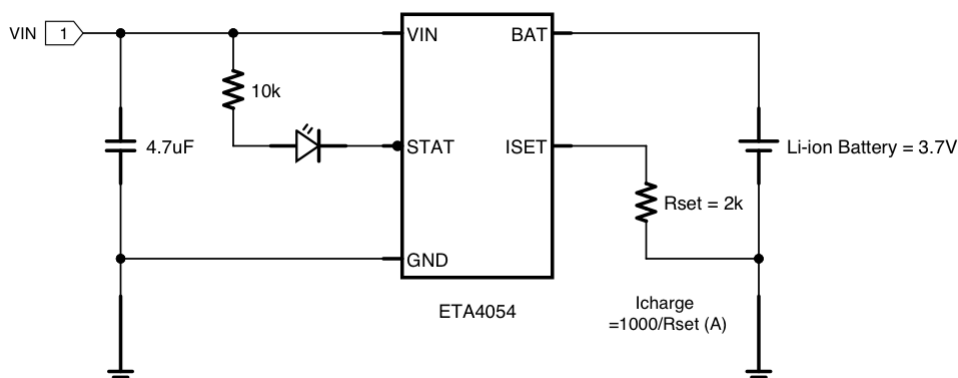
APPLICATIONS

- ◆ Toys
- ◆ Bluetooth applications
- ◆ Li-ion battery powered devices

ORDERING INFORMATION

PART	PACKAGE PIN	TOP MARK
ETA4054S2F	SOT23-5	BIYW

TYPICAL APPLICATION



Typical Application Circuit of 500mA Charge Current