ACE4056P

100mA, Single Li-ion Battery Charger

Description

The ACE4056P is a complete constant-current/ constant voltage linear charger for single cell Lithium-Ion batteries. No external sense resistor is needed, and no blocking diode is required due to the internal MOSFET architecture. The charge voltage is fixed at 4.2V, and the charge current can be programmed externally with a single resistor.

The ACE4056P automatically terminates the charge cycle when the charge current drops to 1/10 the programmed value after the final float voltage is reached.

When the input supply (wall adapter or USB supply) is removed, the ACE4056P automatically enters a low current state, dropping the battery drain current to less than 0.5uA.

The ACE4056P is available in a small package with SOT-23-5. Standard product is Pb-Free.

Features

- Programmable Charge Current Up to 100mA
- Under Voltage Lockout Protection
- Automatic Recharge Threshold 4.05V(Typ.)
- Charge Status Output Pin
- 3.0V Trickle Charge Threshold
- Soft-Start Limits Inrush Current

Application

- Wearable Devices
- MP3/MP4 Players
- U-key
- Bluetooth, wireless handsets
- Others portable electronic device

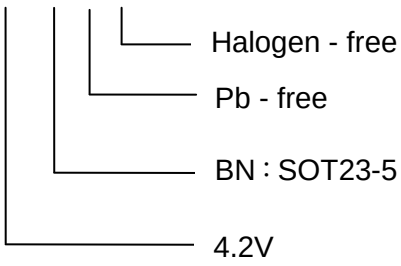
Absolute Maximum Ratings

Symbol	Items		Value	Unit
V_{CC}	Input Voltage		-0.3～6	V
V_{PROG}	PROG Voltage		-0.3～V_{CC}	V
V_{BAT}	BAT Voltage		-0.3～6	V
V_{CHGb}	CHGb Voltage		-0.3～V_{CC}	V
P_{DMAX}	Power Dissipation	SOT23-5	0.3	W
T_J	Junction Temperature		-40~125	℃
Tstg	Storage Temperature		-55 to 150	℃
Tsolder	Package Lead Soldering Temperature		260℃, 10s	

Note: Exceed these limits to damage to the device. Exposure to absolute maximum rating conditions may affect device reliability.

Ordering information

ACE4056P XX XX + H



Notes

ACE does not assume any responsibility for use as critical components in life support devices or systems without the express written approval of the president and general counsel of ACE Technology Co., LTD. As sued herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and shoes failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.