

Single Cell Li-ion Battery Indicator Chip

PRELIMINARY DATASHEET

Datasheet Brief

General Description

The FH5060 is a single lithium battery charge indicator chip, using CMOS process to achieve, small size and ease of installation of portable products.

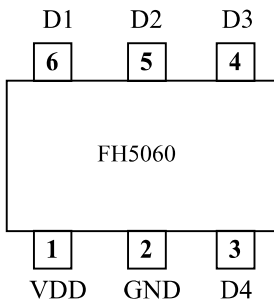
The FH5060 with built-in comparator and feedback loop, to materialize the detection of the four voltage point. By the internal trimming technology, you can ensure that the voltage detection accuracy of $\pm 1\%$.

The output using OPENDRAIN structure, ease of customer use I/O ports or LED indication.

The FH5060 is available in a 6-pin SOT package.

Package

- SOT-23-6L



Typical Application Circuit

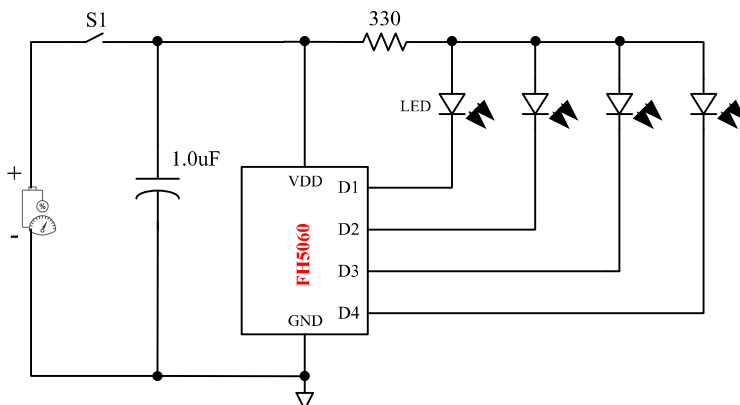


Figure 1. Typical application circuit

Features

- Ultra-low current consumption: $< 10.0\mu A$
- Built-in 4-way comparator, the detection of the four voltage point
- The internal comparator with reasonable hysteresis, is easy to charge and discharge instructions.
- High-precision detection voltage $\pm 1\%$

Applications

- Mobile Power
- LED flashlight
- Portable electronic devices

Pin Function

- VDD(Pin 1):** electric power source
- GND(Pin 2):** ground terminal
- D1-D4(Pin 3-6):** LED1-LED4 output indicates

Device Information (1)

PART NUMBER	PACKAGE	BODY SIZE (NOM)
FH5060	SOT-23 (6L)	2.90mm x 1.60mm

(1) For all available packages, see the orderable addendum at the end of the data sheet.

单节锂电池电量指示芯片

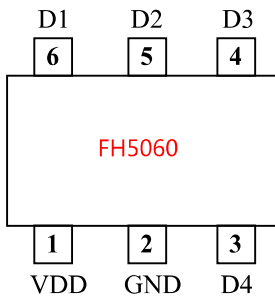
产品概述

FH5060 是一款单节锂电池电量指示芯片，该芯片采用CMOS 工艺实现，体积小，便于便携式产品安装。

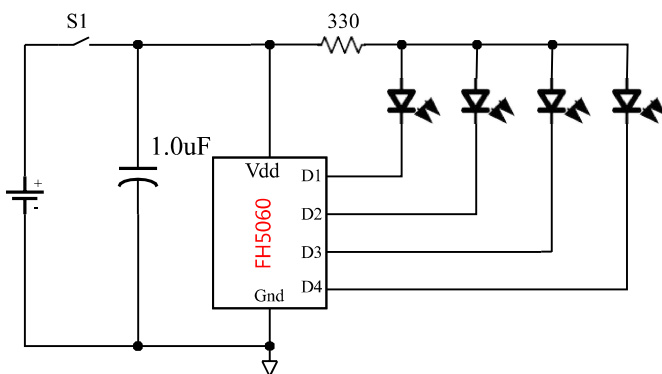
FH5060 内置比较器和反馈回路，实现4 个电压点的检测。通过内部修调技术，可以保证电压检测精度达到±1%。输出采用OPENDRAIN 结构，便于客户使用 I/O 口或者 LED 指示。

封装

- SOT-23-6L



典型应用电路



图一、典型应用电路

产品特点

- 超低功耗: <10.0uA
- 内置 4 路比较器，实现 4 个电压点检测
- 内部比较器具有合理的迟滞，便于做充放电指示。
- 高精度: ±1%

应用领域

- 移动电源 LED 手电 便携式电子设备

引脚功能

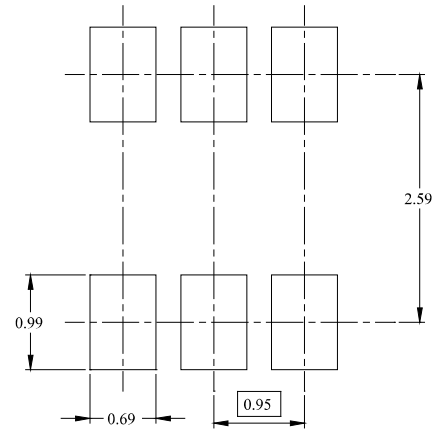
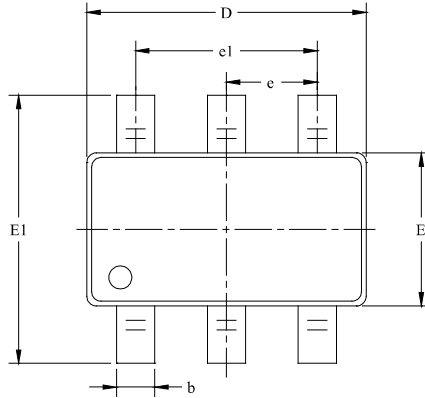
- VDD (引脚1): 电源
- GND (引脚2): 接地端
- D1-D4 (引脚3-6):
LED1 ~ LED4输出指示,
D1为低压端指示, D4为高压端指示

电量示意表

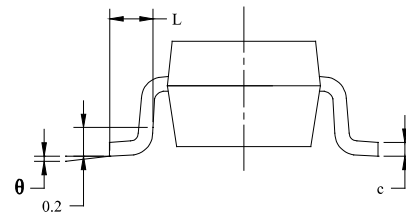
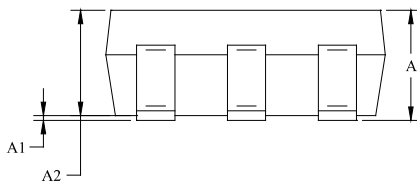
电压范围(上升)(V)	VD1	VD2	VD3	VD4
3.87-4.2	亮	亮	亮	亮
3.7-3.87	亮	亮	亮	灭
3.55-3.7	亮	亮	灭	灭
3.4-3.55	亮	灭	灭	灭
3.4 以下	灭	灭	灭	灭

■ Package

- Type: SOT-23-6L



RECOMMENDED LAND PATTERN (Unit: mm)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	MIN	MAX	MIN	MAX
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950 BSC		0.037 BSC	
e1	1.900 BSC		0.075 BSC	
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

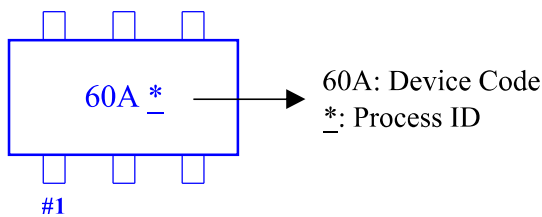
Ordering Information

Part Number	Input Voltage	Features	Operating Temperature	Package Type	Top Mark	SPQ
FH5060M6	2.0 ~ 6.5V	<ul style="list-style-type: none"> • #1 Cell battery indicator • Detection 4 voltage point • Voltage detection accuracy: ±1% • Quiescent current: 8.0uA (typ.) 	-40°C to +85°C	SOT-23-6L	60A_*	3000EA/Reel

Note:

- FH5060 devices are Pb-free and RoHS compliant.
- The surface prints of our semiconductor devices are subject to change during the production process and do not involve changes in electrical parameters, and we will not separately state the notice.
- If you have any other custom purchase needs, please contact our sales department.
- FOCCMU Inc. reserves the right to amend and legally interpret the electrical parameters of this chip device. (<http://www.fordevices.com>)

Device Name: SOT-23-6L



ESD SENSITIVITY CAUTION

ESD damage can range from subtle performance degradation to complete device failure. Precision integrated circuits may be more susceptible to damage because very small parametric changes could cause the device not to meet its published specifications.



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