

## 具有电量均衡功能的5V输入高效同步升压型1.6A双节锂电池充电器

High Efficiency, 1.6-A, 2-Cell Synchronous Boost Battery Charger with Cell Balancing for 5V Input

### ■ FEATURES

- High-efficiency 1.6-A, 800kHz Synchronous boost charger  
92% charge efficiency at 5V adapter, 7.2V battery, 1A charge
- Support 5V input and 2-cell Li-Ion battery  
Supports 4V-6V input voltage range with 16V absolute maximum input voltage rating  
Adaptive input current limit: 4-4.5V input  
OVP protection: 6.2V
- Charge voltage selectable: 8.4V / 8.7V
- Short current / trickle current / constant current / constant voltage charge mode
- Programmable charge current by external resistor
- Status indication
- Charge timeout, Thermal regulation, Over temperature protection, Input voltage UVLO and OVP, Output short circuit / overcurrent / OVP protection, NTC
- Pb-free Packages, SOP8L-PP
- 高效的1.6A 800kHz开关模式同步升压充电器  
5V输入、7.2V电池、1A充电电流下，效率92%
- 支持5V输入，给双节串联锂电池充电  
4V-6V范围内正常工作（最大极限16V）；4-4.5V自动调节输入电流；6.2V过压保护
- 电池饱充电压8.4V和8.7V可选
- 短路涓流/预充涓流/恒流/恒压充电模式
- 充电电流由外部电阻灵活调节
- LED状态显示
- 保护：充电超时、芯片过热反馈调节、过温关断、输入过压、输入欠压、输出过流、输出过压、输出短路、NTC温度保护等
- SOP8L-PP封装

### ■ APPLICATIONS

- Portable Speakers    · POS    · 音箱    · POS机    · 电子烟
- E-Cigarette    · Other portable electronic devices    · 对讲机    · 其他便携式电子设备

### ■ ORDERING INFORMATION

Part Number	Package Type	Marking	Operating Temperature Range	MOQ/Shipping Package
HT4182SPET	SOP8L-PP	HT4182SPE UVWXYZ <sup>1</sup>	-40℃~85℃	Tube / 100pcs
HT4182SPER	SOP8L-PP	HT4182SPE UVWXYZ	-40℃~85℃	Tape and Reel / 2500pcs

<sup>1</sup> UVWXYZ is production tracking code

### DESCRIPTION

HT4182 is a 5V input, two-cell synchronous boost Li-Ion battery charger. The input terminal has UVLO and OVP protection.

HT4182 adopts synchronous boost converter integrating switches to provide a high efficiency and small size solution. The charge current (max 1.6A) is programmable by an external resistor.

HT4182 integrates multiple protection function including: charge timeout, thermal regulation, over temperature protection, Input voltage UVLO and OVP, Output short circuit / overcurrent / OVP protection and NTC. Abnormal status can be indicated by STAT terminal.

The device is available in SOP8L-PP package.

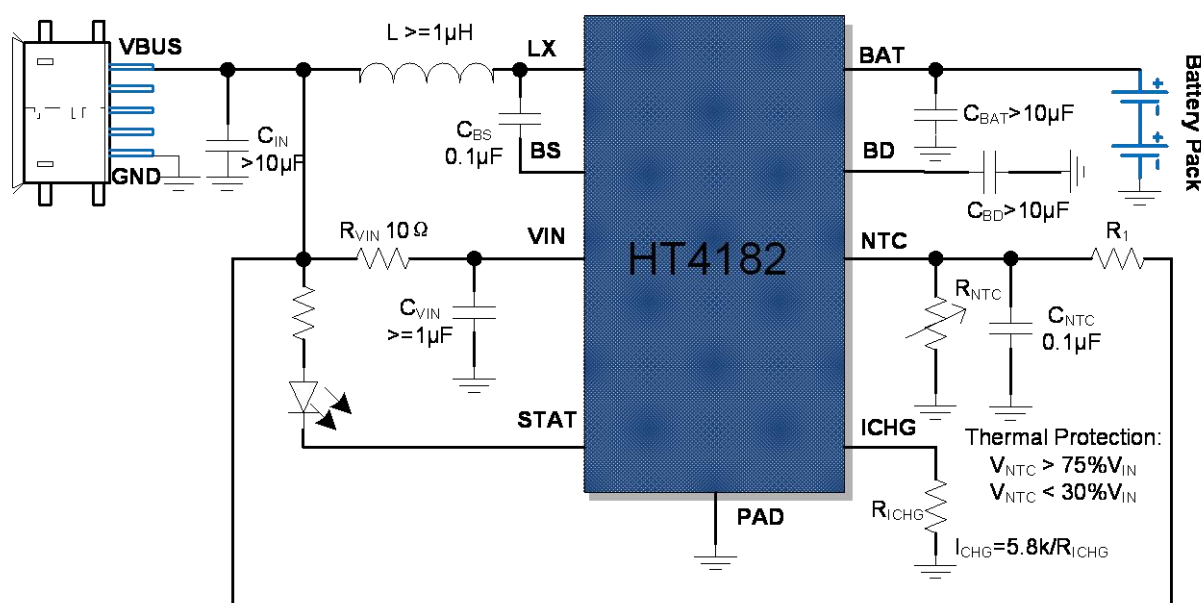
HT4182是一款5V输入，升压模式的充电管理IC，适用于双节串联锂电池。其能自适应任意5V电源进行充电，并且由输入过压、欠压保护。

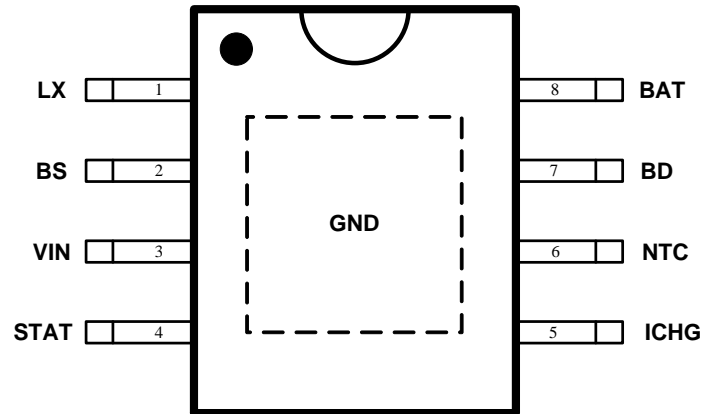
HT4182采用同步升压结构，内置MOSFET，外围元件简单。通过调节外部电阻，可任意调节充电电流，最大支持1.6A，效率超过90%。

HT4182具有多重保护功能：充电超时、芯片过热反馈调节、过温关断、输入过压、输入欠压、输出过流、输出过压、输出短路、NTC温度保护等。异常时，可通过LED进行异常指示。

该产品提供SOP8L-PP封装。

### TYPICAL APPLICATION



**■ TERMINAL CONFIGURATION**


HT4182SPET, HT4182SPER

**■ TERMINAL FUNCTION**

Terminal No.	Name	Description
HT4182		
PAD	GND	Ground. 地。
1	LX	The switching node pin of the boost converter. 开关节点，连接电感。
2	BS	Power supply for high-side MOSFET gate driver. 提供同步整流的栅极驱动，串联 100nF 到 LX。
3	VIN	Power supply input. 电源输入端。
4	STAT	Status indicator. 状态显示端，为开漏极结构。
5	ICHG	Charge current setting. 充电电流设置端，外接电阻到地。
	VC	Mid-Point Between 2 Cells. 连接至双节串中间点。
6	NTC	Temperature Qualification Voltage. 温度保护输入端，接 NTC 电阻到地。
8	BAT	Battery Power Connection. 电池连接端。

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