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Battery protection ICs for 2-cell pack

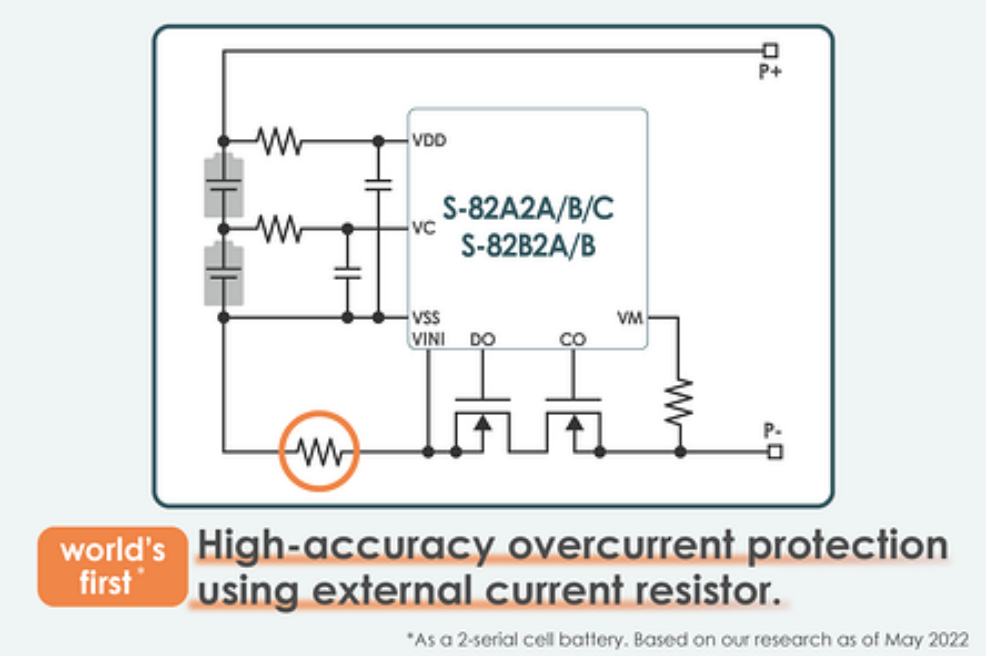
S-82A2/B2 Series

S-82A2/B2 Series

SMALL SMART SIMPLE

ABLIC Inc.

Battery protection ICs ideal for high-accuracy overcurrent protection and higher safety



Provides high-accuracy overcurrent protection.

The S82A2A/B/C and S-82B2A/B Series are **the world's first* 2-serial cell battery protection ICs using an external current detection resistor** to deliver high-accuracy overcurrent protection not easily susceptible to battery voltage and temperature fluctuations.
Moreover, the S-82A2A/B/C series comes with a protection IC whose charge/discharge overcurrent detection voltage accuracy of ±1mV places it in the industry's high-accuracy top class.

Contributes to better safety of small power tools, cordless cleaners and other devices that use comparatively high current.

*Based on our research as of May 2022

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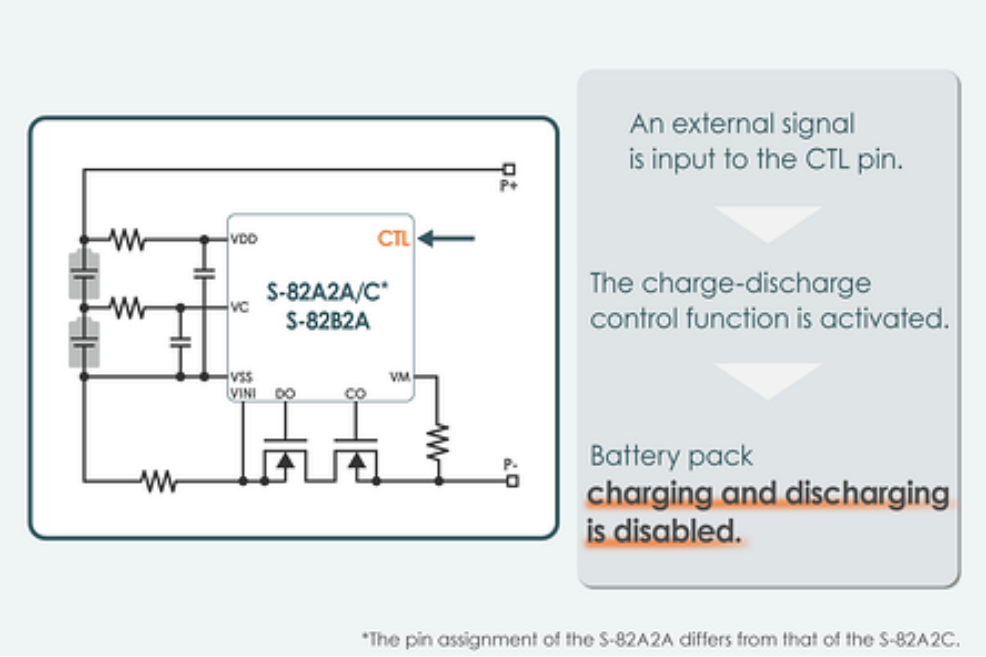

Provides charge-discharge control and thermal protection

In the S-82A2A/C and S-82B2A Series, an external input to the CTL (charge-discharge control signal input) pin activates the charge-discharge control function and **disables battery charge and discharge**. By connecting a PTC thermistor to the CTL pin, the IC delivers **thermal protection** by disabling charging and discharging of the battery pack at high temperatures.

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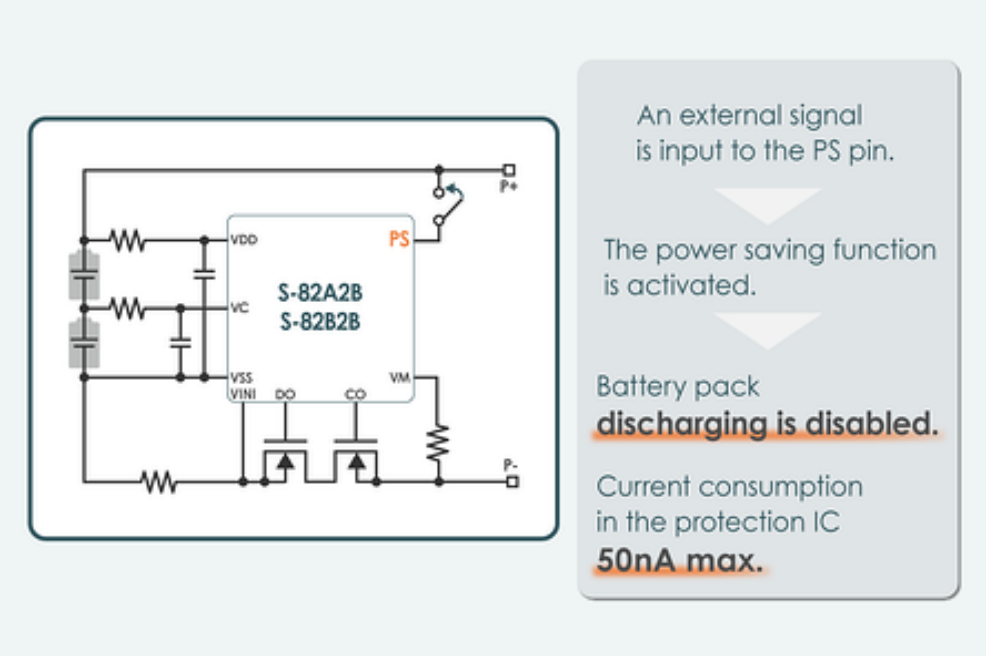

Reduces standby current

In the S-82A2B and S-82B Series, an external input to the PS (power-saving signal input) pin will activate the power-saving function and disable battery discharge.
Simultaneously, **the protection IC itself suppresses current consumption to 50nA max**.

This helps lowering battery consumption to virtually zero during long-term storage of devices, which contributes to reducing standby current.

Applications

- Digital camera
- Tablet PC
- Radio equipment
- Small power tool
- Cordless cleaner
- Gardening tool

Digital camera

Tablet PC

Radio equipment

Small power tool

Cordless cleaner

Gardening tool

Battery Protection ICs Lineup

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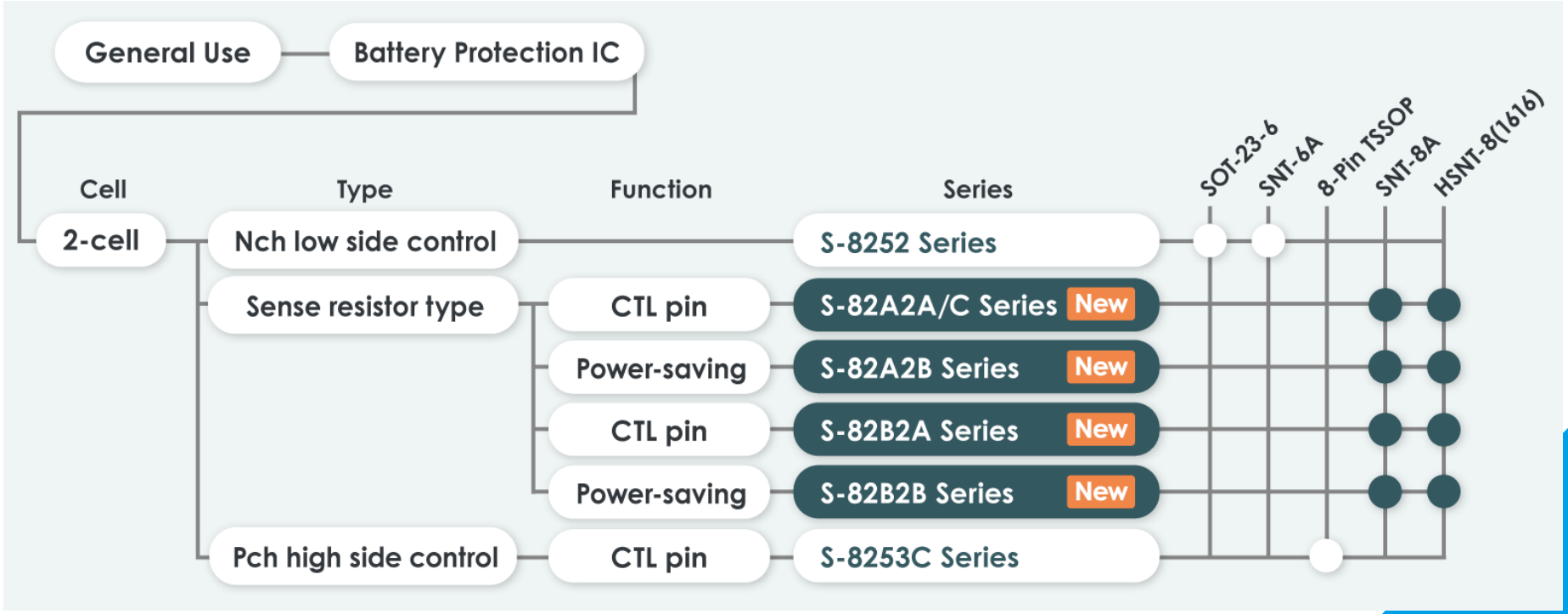

Features

Product name	S-82A2A/C	S-82A2B	S-82B2A	S-82B2B
	For general-use			
Number of cells	2-cell			
Product type	Sense resistor			
function	Charge-discharge control	Power-saving	Charge-discharge control	Power-saving
Overcharge detection voltage (Accuracy)	3.50 V to 4.80 V(±15mV)		3.50 V to 4.80 V(±20mV)	
Overdischarge detection voltage (Accuracy)	2.00 V to 3.00 V(±50mV)			
Discharge overcurrent 1 detection voltage (Accuracy)	0.003 V to 0.100 V(±1mV)		0.003 V to 0.100 V(±3mV)	
Discharge overcurrent 2 detection voltage (Accuracy)	0.010 V to 0.100 V(±3mV)		0.010 V to 0.100 V(±5mV)	
Current consumption during operation	3.0μA typ., 6.0μA max. (Ta = +25℃)			
Current consumption during power-down	50nA max. (Ta = +25℃)			
Package	HSNT-8(1616), SNT-8A			
Operation temperature range	Ta= -40°C to +85°C			

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Thank you so much!

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