

## Product Overview

### LC05732ARA: Battery Protection IC, Integrated Power MOSFET, 1-Cell Lithium-Ion

For complete documentation, see the data sheet.

The LC05732ARA is a protection IC for 1-cell lithium-ion secondary batteries with integrated power MOS FET. Also it integrates highly accurate detection circuits and detection delay circuits to prevent batteries from over-charging, over-discharging, over-current discharging and over-current charging. In addition, main system can execute the power-on reset of itself by turning off the charge FET and discharge FET of LC05732ARA for a certain time period, with a reset signal.

A battery protection system can be made by only LC05732ARA and few external parts.

#### Features

- Charge-and-discharge power MOSFET are integrated
- ON resistance (total of charge and discharge ) 4.8 mΩ (typ)
- Discharge/Charge over-current detection is compensated for temperature dependency of power FET
- Highly accurate detection voltage/current at Ta = 25°C, VCC = 3.7 V  
 Over-charge detection ±25 mV  
 Over-discharge detection ±50 mV  
 Charge over-current detection ±0.7 A  
 Discharge over-current detection ±0.7 A
- Reset function  
 Reset release time : 1 s (typ) [Ta = 25°C]
- 0 V battery charging : "Inhibit"
- Auto wake-up function battery charging : "Inhibit"

#### Benefits

- Easy design
- Low power dissipation
- Accurate control
- High accurate detection
- More safe operation for embedded battery.
- Safty operation
- Safty operation

#### Applications

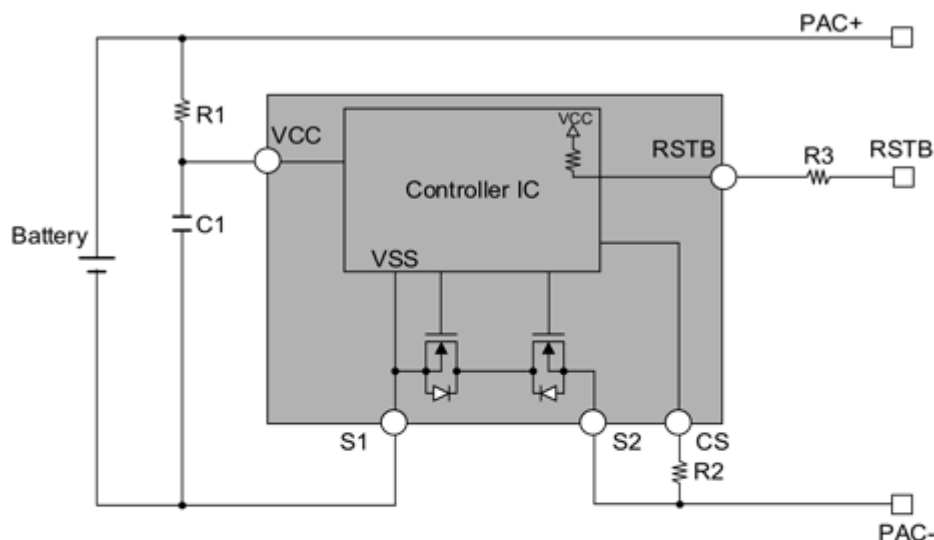
- 1-cell Lithium-ion Secondary Batteries Protection

#### End Products

- Smart phones
- Tablets
- Wearable devices

## Application Diagram

### Example of Application Circuit



Components	Recommended value	MAX	unit
R1	680	1 k	Ω
R2	1 k	2 k	Ω
R3	1 k	2 k	Ω
C1	1.0 μ	-	F

\* We don't guarantee the characteristics of the circuit shown above.

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