

1 Outline

This specification is suitable One-serial-cell Lithium ion Battery Protection circuit

2 Application

Lithium-ion rechargeable battery packs

Lithium-ion polymer battery packs

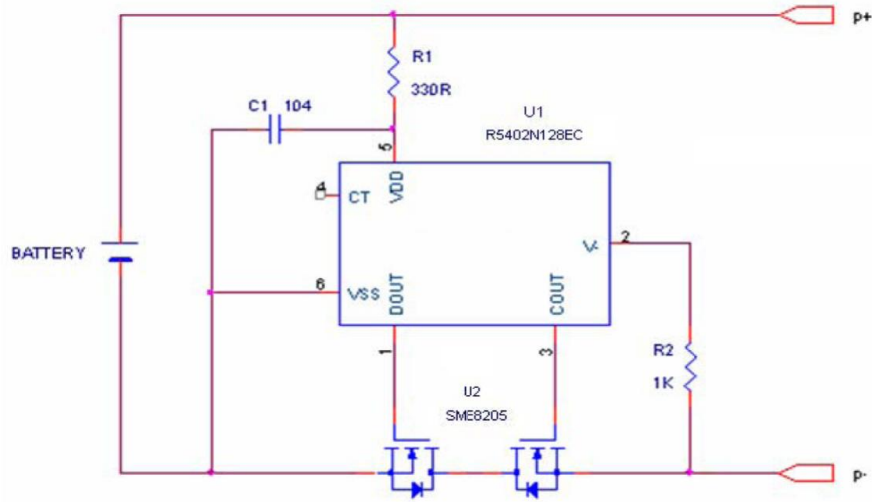
3 Electrical characteristics

Item	Symbol	Content	Criterion
Over charge Protection	VDET1	Over charge detection voltage	4.28±0.05V
	tVDET1	Over charge detection delay time	1.0±0.3S
Over discharge protection	VDET2	Over discharge detection voltage	2.8±0.1V
	tVDET2	Over discharge detection delay time	20.0±6.0mS
Over current protection	VDET3	Over current detection voltage	0.05±0.015V
	IDP	Over current detection current	0.5~2.0A (1.25A)
	tVDET3	Detection delay time	6.0±2.0mS
		Release condition	Cut load
Short protection		Detection condition	Exterior short circuit
	TSHORT	Detection delay time	120~300uS
		Release condition	Cut short circuit
Interior resistance	RSS	Main loop electrify resistance	VC=4.2V; RSS≤65mΩ
Current consumption	IDD	Current consume in normal operation	4.0μA Type 8.0μA Max

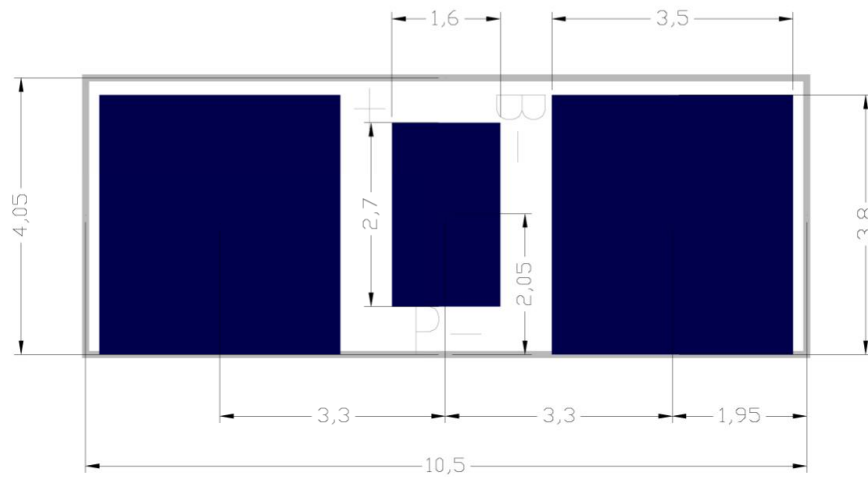
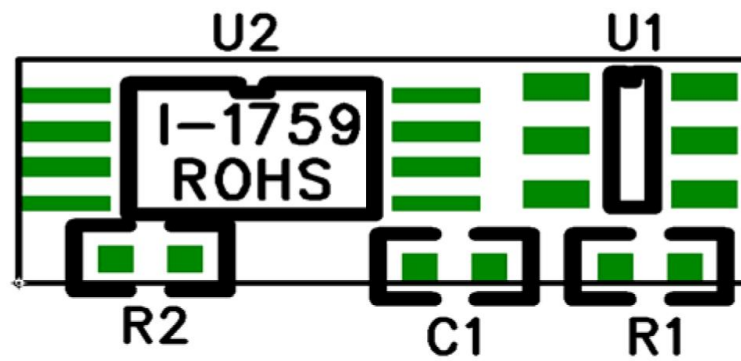
4 Parts list

No	Location	Part name	Specification	Pack type	Q'ty	Maker/Remark
1	U1	Battery protection IC	R5402N128EC	SOT-23-6	1	RICOH
2	U2	Silicon MOSFET	SME8205	TSSOP-8	1	SME
3	R1	Resistance	SMD 330Ω±5%	0402	1	YAGEO
4	R2	Resistance	SMD 1KΩ±5%	0402	1	YAGEO
5	C1	Capacitance	SMD 0.1μF	0402	1	YAGEO
6	PCB	Print circuit board	I-1759 10.5*4.05*0.6mm		1	AS

5 Application Circuit



6 PCM layout



7 Terminal explanations

- 7.1 B+: Connected to the battery's positive terminal
- 7.2 B-: Connected to the battery's negative terminal
- 7.3 P+: Connected to the battery's output or the charger's positive terminal
- 7.4 P-: Connected to the battery's output or the charger's negative terminal