



Specification Approval Sheet

Name: Protection Circuit Modules

Model: 32003

SPEC: PCM-F3.7V 5/15A

File Number: 510101005A015

Project: /

Approved By	Checkup	Make
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		2015-2-28

Customer Confirmation	Signature	Date
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1 Outline

This specification is suitable one-serial-cell Lithium ion Battery Protection circuit manufactured by Tenergy Corporation.

2 Application

Lithium-ion rechargeable battery packs

Lithium-ion polymer battery packs

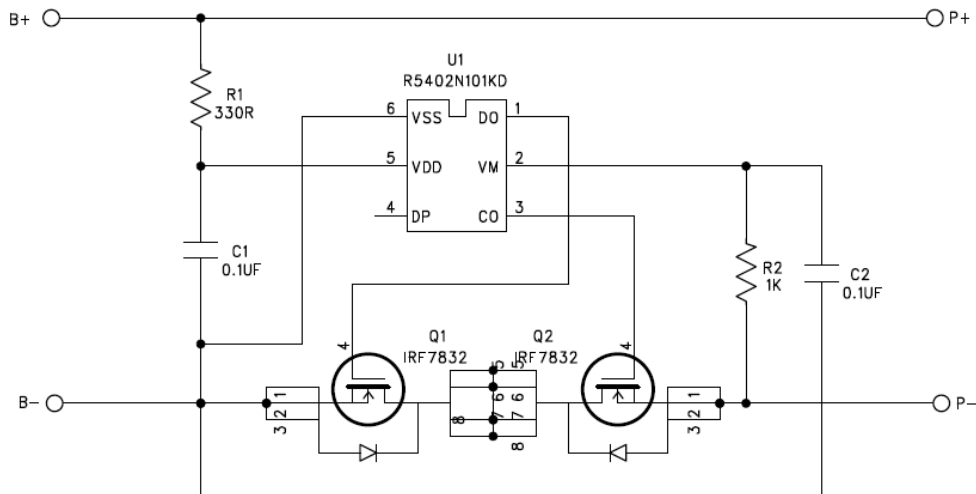
3 Electrical characteristics

Item	Content	Criterion
Over charge Protection	Over charge detection voltage	4.25±0.025V
	Over charge release voltage	4.05±0.05V
Over discharge protection	Over discharge detection voltage	2.5±0.063V
	Over discharge release voltage	3.0±0.075V
	Rated operational current	≤5A
Over current protection	Over current detection current	15±3A
	Release condition	Cut load
	Detection delay time	8~16ms
Short protection	Detection condition	Exterior short circuit
	Release condition	Cut short circuit
Interior resistance	Main loop electrify resistance	$R_{SS} \leq 60m \Omega$
Current consumption	Current consume in normal operation	8μA Max
Dimension(L*W*H)	28*7*0.8mm	

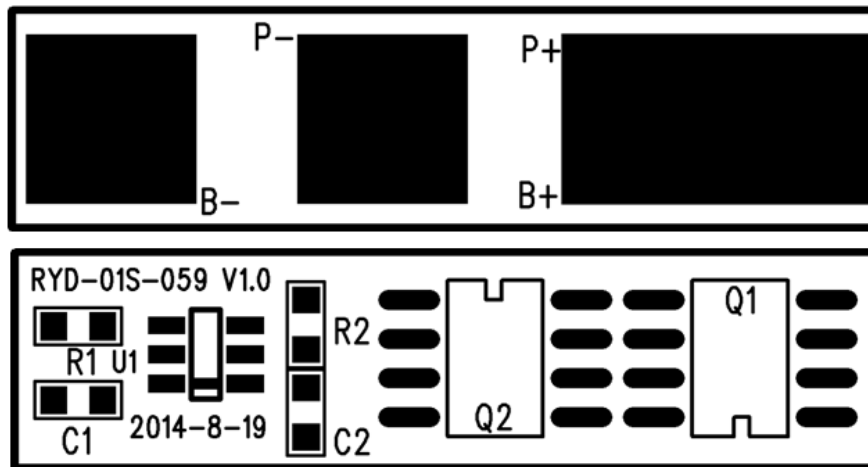
4 Parts list

No	Item	Model & Specification	Pack & dimension	Location	qty
1	Resistance	R-0603-330Ω±5%-1/10W	0603	R1	1
2	Resistance	R-0603-1KΩ±5%-1/10W	0603	R2	1
3	Capacitance	C-0603-104-50V-X7R ±10%	0603	C1	1
4	MOSFFET	MOS-IRF7832 N	SO-8	Q1,Q2	2
5	IC	IC-R5402N101KD	SOT-23-6	U1	1
6	PCB	PCB-RYD-01S-059 V1.0 28*7*0.8mm			

5 Application Circuit



6 PCB 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