Specification Approval Sheet

Name: Protection Circuit Modules

Model: 32010

SPEC: PCM-F14.8V 5/6.5A

File Number: 510104005A001

Approved By	Checkup	Make
		Bing Chen
		2014-6-6

	Signature	Date
Customer Confirmation	Company Name：	
	Stamp：	

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Amendment Records

Revision	Description	Issued Date	Approved By
A0	New release	2014-6-6	

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1 Outline

This specification is suitable four-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	4.15±0.05V
Over discharge protection	Over discharge detection voltage	2.5±0.08V
	Over discharge release voltage	3.0±0.1V
	Rated operational current	≤5A
Over current protection	Over current detection current	6.5±1.5A
	Release condition	Cut load
	Detection delay time	5～15ms
Short protection	Detection condition	Exterior short circuit
	Release condition	Cut short circuit
Interior resistance	Main loop electrify resistance	R_{SS}≤30mΩ
Current consumption	Current consume in normal operation	30μA Max
Dimension(L*W*H)	50*16*3.5mm	

4 Parts list

No	Location	Part name	Specification	Pack type	Q'ty
1	U1	IC	IC-S8254AAN	TSSOP-16	1
2	Q2,Q3	MOSFFET	MOS-AO4429	SO-8	2
3	R5	Resistance	R-0805-51Ω±5%-1/10W	0805	1
4	R2,R7--R12	Resistance	R-0603-1KΩ±5%-1/10W	0603	7
5	R3,R6	Resistance	R-0603-5.1KΩ±5%-1/10W	0603	2
6	R4	Resistance	R-0603-1MΩ±5%-1/10W	0603	1
7	R1	Resistance	R-2512-0.015Ω±1%-1W	2512	1
8	C1-C5,C7	Capacitance	C-0603-104-50V-X7R ±10%	0603	6
9	C6	Capacitance	C-0805-225-25V-X7R ±10%	0805	1
10	PCB	RYD-03/4S V1.0			1
11	PCM	PCM-F14.8V 5/6.5A 50*16*3.5mm			

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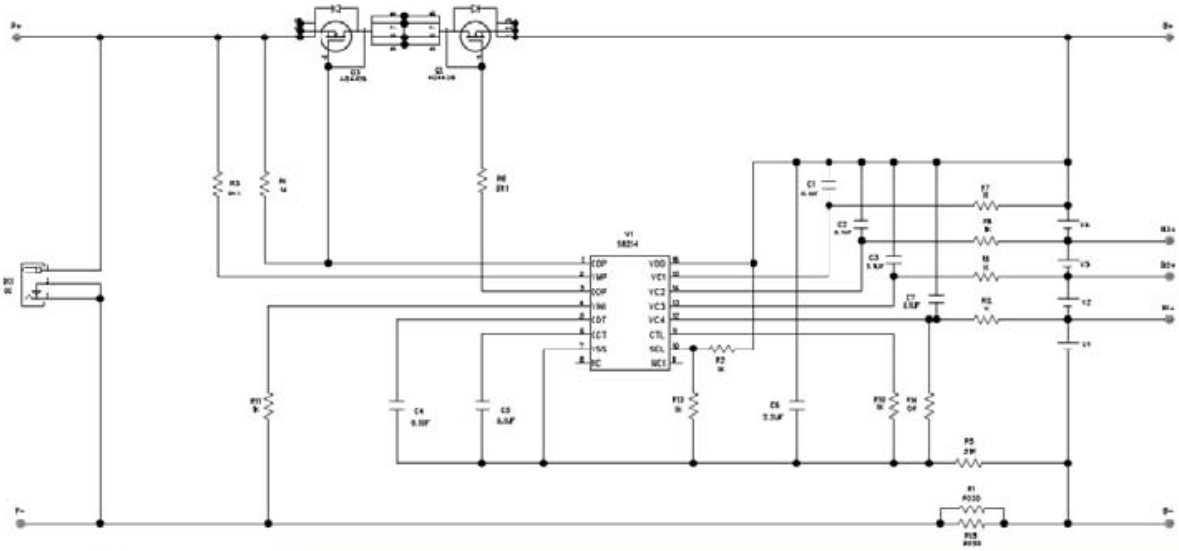
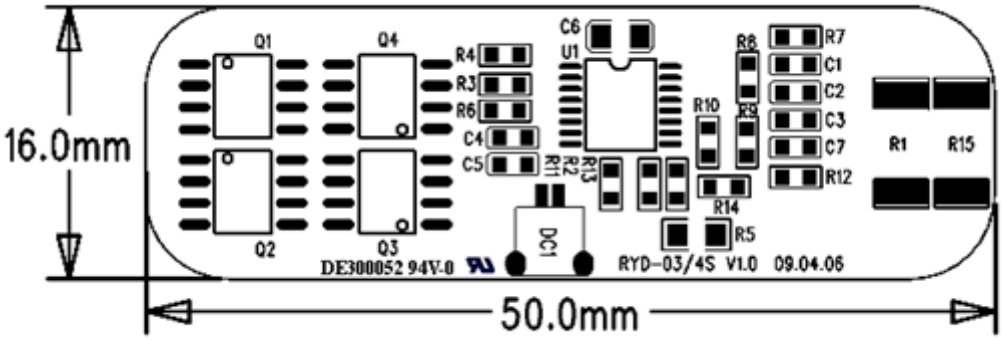
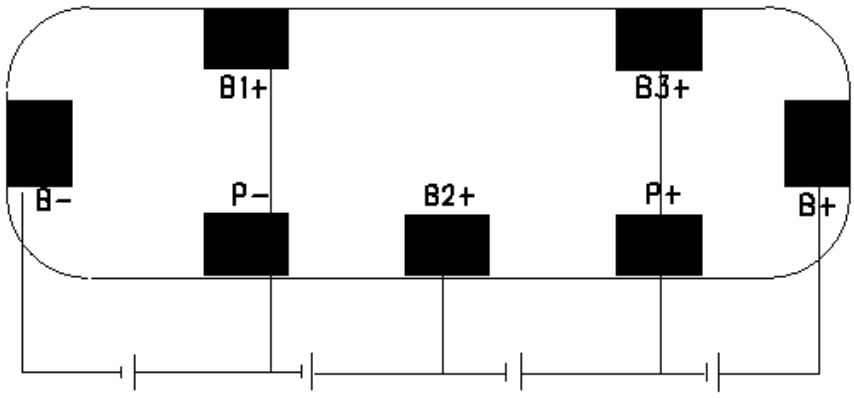
5 Application Circuit



6 PCB layout





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7 Terminal explanations

7.1.1 B+：Connected to the fourth battery's positive terminal

7.1.2 B3+：Connected to the third battery's positive terminal

7.1.3 B2+：Connected to the second battery's positive terminal

7.1.4 B1+：Connected to the first battery's positive terminal

7.1.5 B-：Connected to the first battery's negative terminal

7.1.6 P+：Connected to the battery's output or the charger's positive terminal

7.1.7 P-：Connected to the battery's output or the charger's negative terminal