Product Specifications

1. Date of 1st Issue: 2007-12-19

2. Date of Revision (1st):

3. Customer's Part Name:

4. Customer's Part Number:

5. GMB's Part Name: GMB_PCM 308EB 2.5V
6. GMB's Part Number:

7. Customer's Approval

8. Supplier

Guangzhou Markyn Battery CO., LTD

Block B1, Dashi Town, Panyu District, Guangzhou C, PRC

Product Specifications – GMB_PCM 308EB 2.5V -Spec1

Revision History

Date	Description	Checked By	Approved By
2007-12-19	First Issue		

Product Specifications - GMB_PCM 308EB 2.5V-Spec1

Contents

Product Specifications - GMB_PCM 308EB 2.5V-Spec1

1. Scope

This specification shall be applied to Lithium ion polymer battery protection circuit module- model number GMB_PCM308EB 2.5Vetc. manufactured by Guangzhou Markyn Battery CO., LTD.

2. Type and Model

2.1 Type: Protection Module for Li Ion/Li-Polymer Battery Pack
2.2. Model: GMB_PCM308EB 2.5V etc.

3-A. Absolute Maximum Ratings (for Ricoh R5402N101KD)

3-A.1 Supply Voltage: -0.3V to 12 V
3-A.2. Operating Temperature: -40°C to 85°C
3-A.3. Storage Temperature: -55°C to 125°C

4-A. Electrical Characteristics (for Ricoh R5402N101KD)(T=25°C)

The followings is referring to the specs of R5402N101KD of Ricoh (for details, see R5402N101KD specs). These specs are guaranteed by design not by production tests.

4-A.1 Input Voltage:	1.5V (min)		5.0V(max)
4-A.2 Overcharge Detection :	4.225V (min)	4.250V(Typ)	4.275V(max) for R5402N101KD
4-A.3 Output Delay of Overcharge:	0.7s (min)	1.0s(Typ.)	1.3s (max) for R5402N101KD
4-A.4 Overcharge Release :	4.000V (min)	4.05V(Typ)	4.10V(max) for R5402N101KD
4-A.4 Over-discharge Detection :	2.437V (min)	2.500V(Typ)	2.563V(max) for R5402N101KD
4-A.5 Output Delay of Over-discharge:	14ms (min)	20ms(Typ.)	26ms (max) for R5402N101KD
4-A.6 Over-discharge Release :	2.925V (min)	3.000V(Typ)	3.075V(max) for R5402N101KD

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4-A.7 Over Current Detection :	0.185V (min)	0.20V(Typ)	0.215V(max)	for R5402N101KD
4-A.8 Output Delay of Over-Current:	8ms (min)	12ms(Typ.)	16ms (max)	for R5402N101KD
4-A.9 Short Protection Voltage:	0.55V	0.8 V	1.0V (VDD=3.0V)	forR5402N101KD
4-A.10 Output Delay of Short Protection:	230(Min)	300 µs(Typ.)	500 µs(max)	for R5402N101KD
4-A.11 Supply Current (active status):		4.0µA (Typ)	8.0µA (max)	for R5402N101KD
4-A.12 Supply Current (Standby):		1.2µA (Typ)	2.00µA (max)	for R5402N101KD
4-A-13 PCM Resistance :	35mΩ (min)	50mΩ (Typ)	60mΩ (max)	

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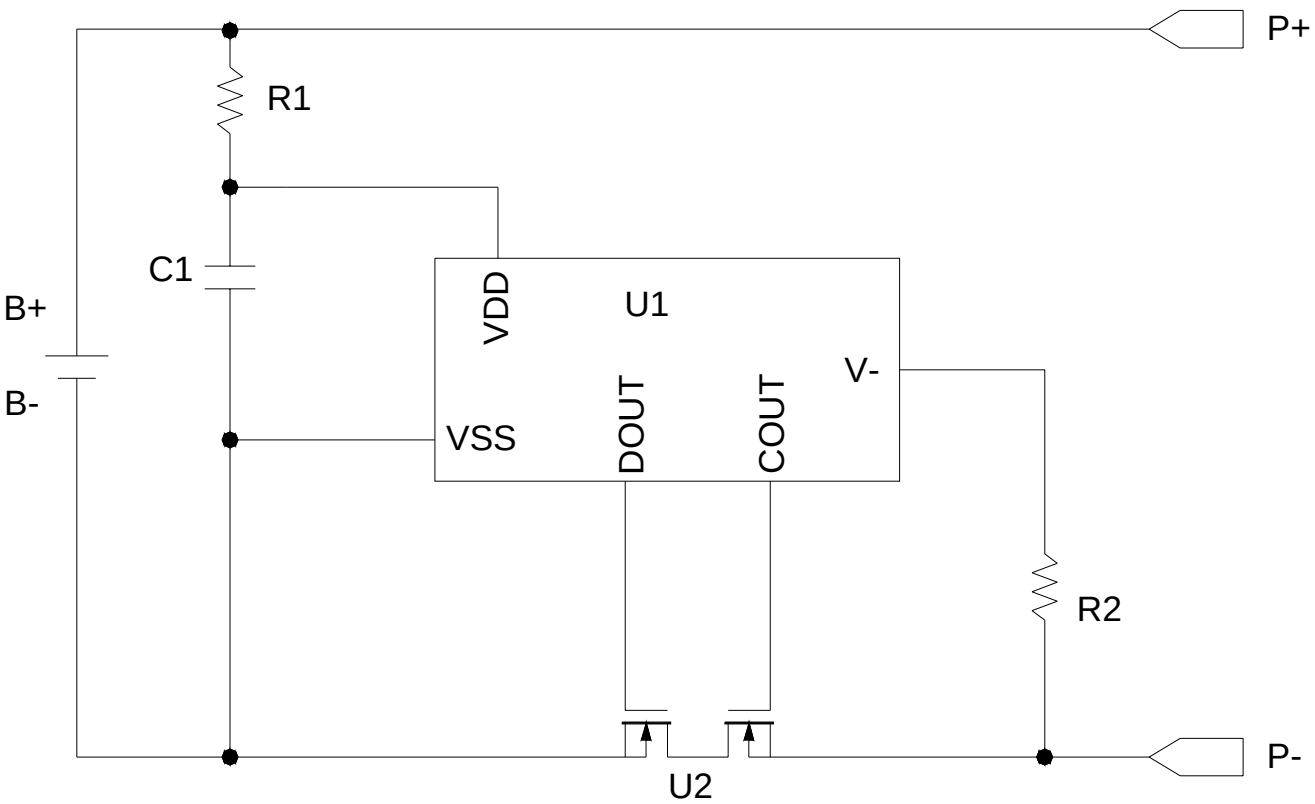
6-A. Part List (for 5402N101KD or Equivalent)

Part Number	Part Name	Qty	Remark
Ricoh R5402N101KD or Equivalent	Control IC	1	U1
SMS8205 or Equivalent	MOSFET	1	U2
330 Ω(0603)	Resister	1	R1
1kΩ(0603)	Resister	1	R2
0.1uF(0603)	Capacitor	1	C1

7-A. PCM Circuit Diagram (R5402N101KD or Equivalent)



7-B. PCB layout (R5402N101KD or Equivalent) PCM308EB