CZM

创智美

1.History of revisions

2.2 Environmental request

☑ RoHS 2.0 ☐ HF 无卤素 ☐ REACH ☐ 其它

2.3 Functional description

1） Over-charge voltage protection

2） Over-discharge voltage protection

3） Over current protection

4） Short circuit protection

5） temperature

2.4 Mechanical characteristics

1） PCM size:：L 53.8(±0.2mm)×W 34(±0.2mm)×T 4.0mm(MAX)2）

PCB MATERIAL/PCB ： FR-4, 1 oz,1.0±0.1mm

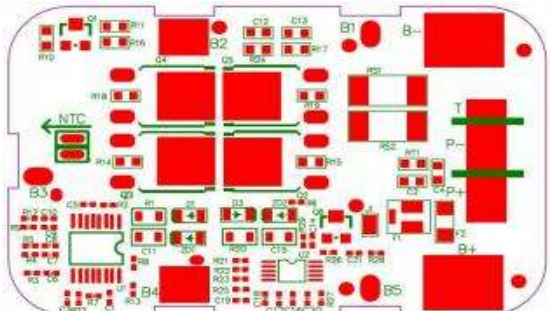
3） LAYER：2Layers

4） Plating Method：HASL LF

5） PSR INK:：Green

6) SILK INK：White

2.5 Connecting description



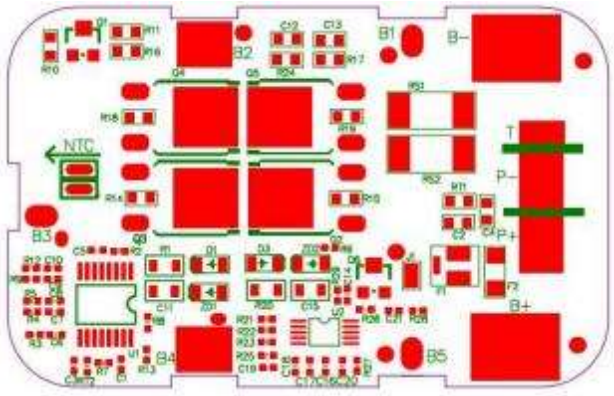
Symbol	Description	Symbol	Description
P+	Battery output /charging positive pole	B+	Cell 6 positive pole
P-	Battery output charging negative pole	B5	Cell 5 positive pole, Cell 6 negative pole
T	Reserve NTC	B4	cell 4 positive pole, cell 5 negative
B1	Cell 1 positive pole Cell 2 negative	B3	cell 3 positive pole, cell 4 negative pole

Contents	Min.	Type	Max.	Tolerance	Unit
Absolute Maximum Rating					
Input Charging Voltage		25.2			V
Input Charging Current			5		A
Output Discharging Voltage	16.2	22.2	25.5		V
Continuous Output Discharging Current			10		A
Ambient Condition					
Operating Temperature	-20		+85		℃
Humidity (No Water-Drop)	0%		80%		RH
PCM Storage Condition/PCM					
PCM Storage Temperature PCM	-40		+125		℃
Humidity (No Water-Drop)	45%		85%		RH
Protection Parameters					
Over-Charge Voltage Protection (OVP1) 1	4.200	4.225	4.250	±25	mV
Over-Charge Voltage Protection Release 1	4.075	4.125	4.175	±50	mV
Over-Charge Voltage Protection Delay Time 1	500	1000	1500		mS
Over-Charge Voltage Protection (OVP2) 2	/	/	/		mV
Over-Charge Voltage Protection Release 2	/	/	/		mV
Over-Charge Voltage Protection Delay Time 2	/	/	/		mS
Over-Discharge Voltage Protection (UVP)	2.620	2.700	2.780	±80	mV
Over-Discharge Voltage Protection Release	2.900	3.000	3.100	±100	mV
Over-Discharge Voltage Protection Delay Time	500	1000	1500		mS
Charging temperature protection	45	50	55		℃
discharge high temperature protection temperature	65	70	75		℃
Over-Current Discharge Protection Detection Voltage	45	50	55	±5	mV
Over-Current Discharge Protection1 （OCD1）1	15	16.5	18		A
Over-Current Discharge Protection2 （OCD2）2	30	33	36		A
Charge overcurrent protection	6	8.2	10		A
Over-Current Discharge Protection Delay Time1 1	500	1000	1500		ms
Over-Current Discharge Protection Delay Time2 2	50	100	150		ms
Charge over current detection delay time	200	400	600		ms
Short Circuit Protection Detection Voltage (SCP)	160	200	240		mV
Short Circuit Protection Delay Time	100	300	500		uS
Short Circuit Protection Release	Remove Load Or Connect Charger				

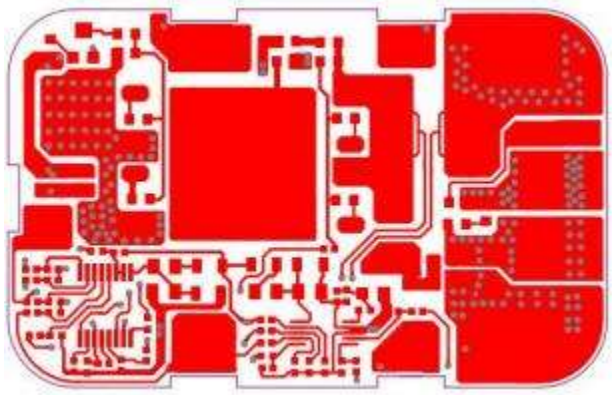
Current Consumption					
Normal Mode		20	35		uA
Other Parameters					
Impedance （B-&P-）		20	40		mΩ
NTC Resistance NTC ：10K±1%, B=3435, Temperature： 10℃~ 35℃	6.85	10	18.3		KΩ

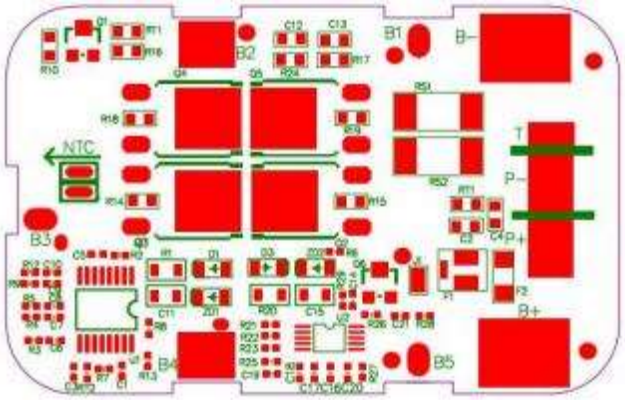
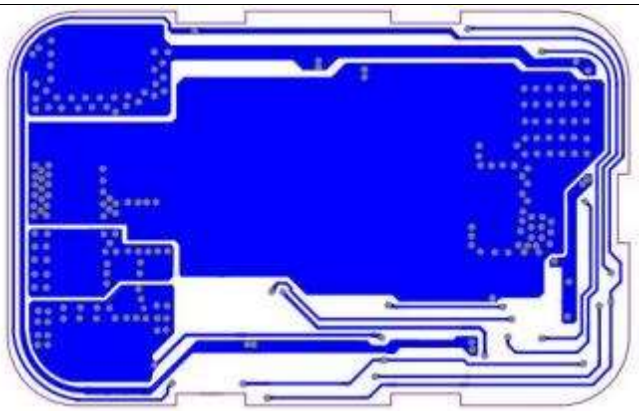
0V Battery Charge Function 0V	Not available
ESD Protection Function ESD	/

4. SMT Diagram

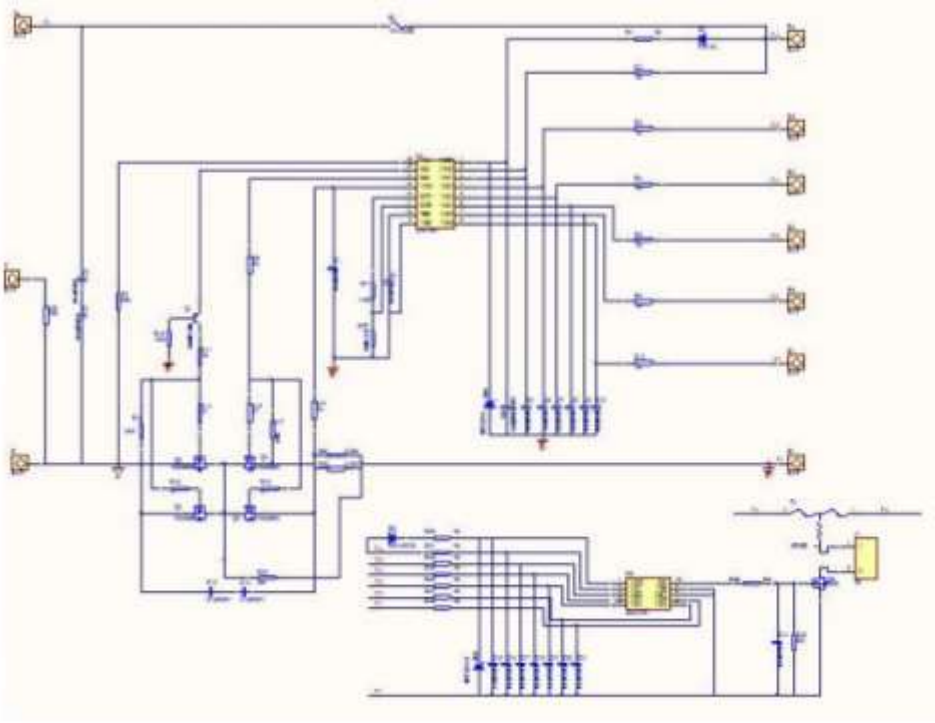
Top layer	

5.PCB Layout / PCB

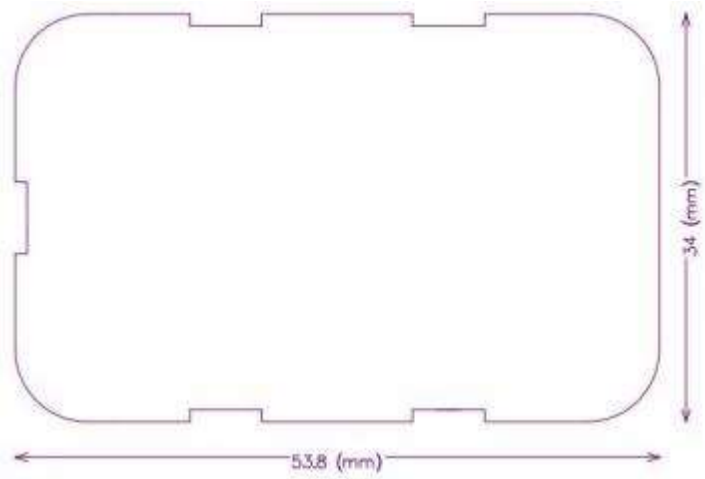
Top layer	

Top Over layer	
Bottom layer	
Bottom overlayer	

6.Electrical Schematic



7.PCB diagram / PCB



9.2 Environmental Requirements

The specification subjects to the EU Directive about RoHS 2.0, and the hazardous substance conforms to the following standard.

Hazardous substance有害物质	Standard基准（ mg/KG）	Remarks 备注
镉(Cd)	<100	
铅(Pb)	<1000	
汞(Hg)	<1000	
六价铬(Cr6+)	<1000	
多溴联苯(PBBs)	<1000	
多溴二苯醚(PBDEs)	<1000	
邻苯二甲酸二丁酯(DBP)	<1000	

邻苯二甲酸丁苄酯（BBP）	<1000	
邻苯二甲酸二异丁酯(DIBP)	<1000	
邻苯二甲酸（2- 乙基己基酯）(DEHP)	<1000	

Declaration: the above standard is the requirements of EU RoHS 2.0 Directive, we will base on the customer's requirements when it is stricter than the EU standard.