

# KEEPOWER TECHNOLOGY CO., LIMITED

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## Approve of sample

<b>Customer name</b>				<b>Product number</b>	<b>KP-5530-1S</b>
<b>Date of sample</b>				<b>Customer type</b>	<b>KP-5530-1S</b>
<b>Edition</b>	<b>01</b>	<b>page</b>		<b>File number</b>	
<b>Checked by</b>			<b>Approved by</b>		<b>Made by</b>
					<b>HKY</b>
<b>Material number</b>					
<b>Customer confirm</b>					
<b>Advice confirm:</b>					
<b>Certification:</b>					
<b>Date:</b>					

# Contents

## 1 Outline

This specification is suitable 1-cell Lithium ion Battery Protection circuit manufactured by KEEPOWER TECHNOLOGY CO., LIMITED.

## 2 Application

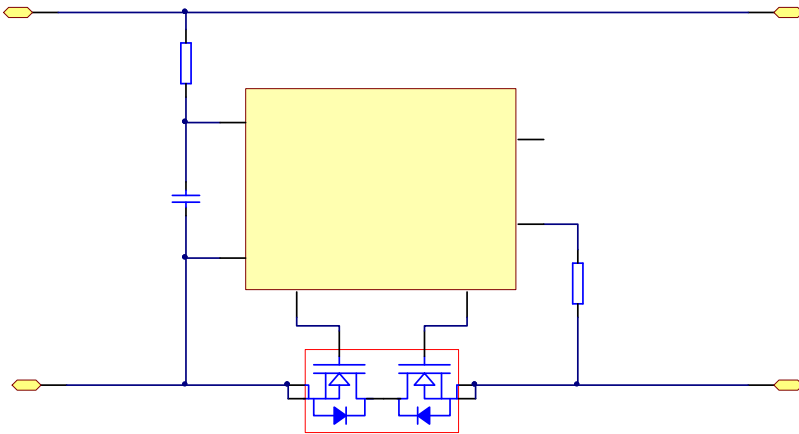
- (1) Lithium-ion rechargeable battery packs
- (2) Lithium-ion polymer battery packs

## 3 Electrical characteristics

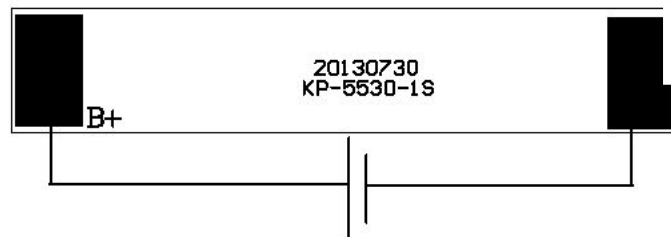
 $T_{opt}=25^{\circ}\text{C}$ 

Item	Symbol	Content	Criterion
Over charge Protection	$V_{DET1}$	Over charge detection voltage	$4.25\pm 0.025\text{V}$
	$tV_{DET1}$	Over charge detection delay time	$1000\pm 300\text{ms}$
	$V_{REL1}$	Over charge release voltage	$4.05\pm 0.05\text{V}$
Over discharge protection	$V_{DET2}$	Over discharge detection voltage	$2.5\pm 0.063\text{V}$
	$tV_{DET2}$	Over discharge detection delay time	$20\pm 6\text{ms}$
	$V_{REL2}$	Over discharge release voltage	$3.0\pm 0.075\text{V}$
Over current protection	$V_{DET3}$	Over current detection voltage	$0.2\pm 0.015\text{V}$
	$I_{DP}$	Over current detection current	4-7A
	$tV_{DET3}$	Detection delay time	0.5-1.7ms
		Release condition	Cut load
Short protection		Detection condition	Exterior short circuit
		Short Detection delay time	230-500us
		Release condition	Cut short circuit
Interior resistance	$R_{DS}$	Main loop electrify resistance	$V_C=3.8\text{V}; R_{DS}\leq 45\text{m}\Omega$
Current consumption	$I_{DD}$	Current consume in normal operation	$3\mu\text{A}$ Type $8\mu\text{A}$ Max

#### 4、 Application Circuit



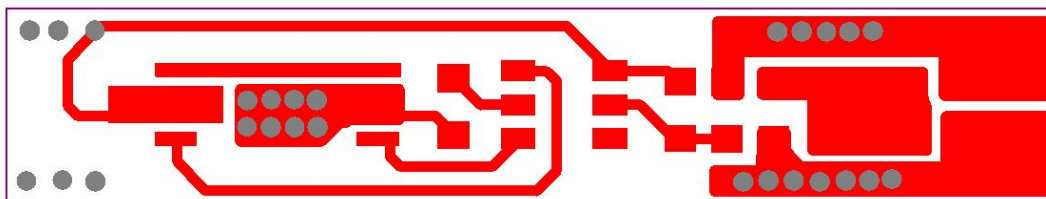
#### 5、 the connect capture



#### 6、 PCB layout



BOTTOM LAYER



TOP LAYER

## BOM:

Item	Part No.	Part Name	Q'ty	Specification	Remark
1	U1	Control IC	1	R5478N101CD	RICOH
2	U2	MosFET	1	AO8814	AOS
3	R1	RESISTANCE	1	330R	GUOJU
4	R2	RESISTANCE	1	1K	GUOJU
5	C1	CAPACITOR	1	103 50V 20%	GUOJU
6	R3	NTC	1	10K 1%B=3435	ZUOYISHE
7	29.7*5.5*0.6mm	PCB	1	KP-5530-1S	MEIYADI

## SIZE:

