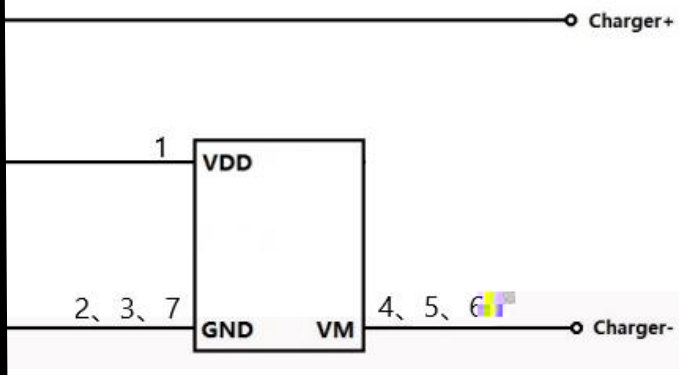
BRCL3230ZF
Rev.C Nov.-

BRCL3230ZF / BRCL3230ZF
MOSFET
BRCL3230ZF DFN2×2-6L
BRCL3230ZF

The BRCL3230ZF series product is a high integration solution for lithium-lion/polymer battery protection.BRCL3230ZF contains advanced power MOSFET, high-accuracy voltage detection circuits and delay circuits.
BRCL3230ZF is put into an ultra-small DFN2×2-6L package makes it an ideal solution in limited space of battery pack. BRCL3230ZF has all the protection functions required in the battery application including overcharging, overdischarging, overcurrent and load short circuiting protection etc. The low standby current drains little current from the cell while in storage. The device is not only targeted for digital cellular phones, but also for any other Li-Ion and Li-Poly battery-powered information appliances requiring long-term battery life.

- 45mΩ MOSFET
- DFN2×2-6L
- RC
-
-
- 2 1 2
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er consumption shall not exceed the maximum power consumed by the package.
has anti-static protection function, but do not exceed the maximum capacity of th
and static electricity.

Pin Description

/Parameter	/Symbol	/Value	/Unit
V_{DD} input pin voltage	V_{IN}	-0.3 to +6	V
V_M input pin voltage	V_{VM}	-6 to +10	V
Power Dissipation	P_D	400	mW
Maximum Junction Temperature	T_J	125	℃
Lead Temperature	T_L	300	℃
Operating Junction Temperature	T_{opr}	-40 to +85	℃
Storage Temperature	T_{stg}	-55 to +150	℃

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/ Overcurrent Condition

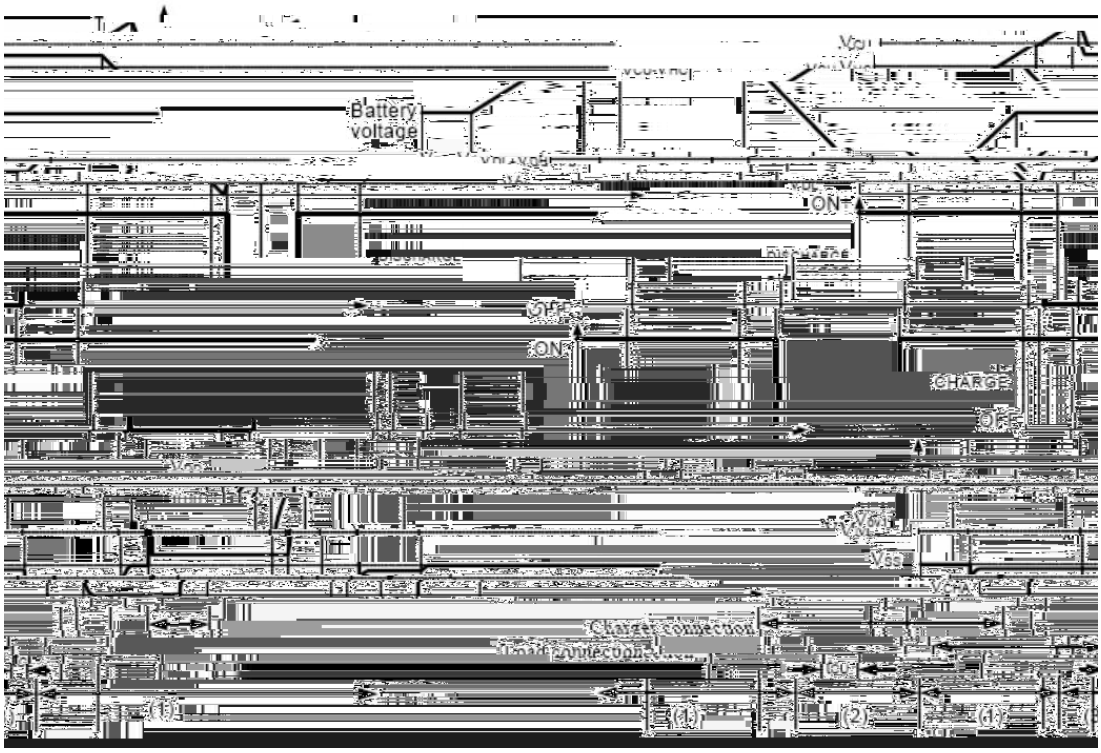
When the discharging current becomes equal to or higher than a specified value (the VM pin voltage is equal to or higher than the overcurrent detection voltage) during discharging under normal condition and the state continues for the overcurrent detection delay time or longer, the BRCL3230ZF turns off the discharging control FET to stop discharging. This condition is called overcurrent condition. (The overcurrent includes overcurrent, or load shortcircuiting.) The VM and GND pins are shorted internally by the RVMS resistor under the overcurrent condition. When a load is connected, the VM pin voltage equals the VDD voltage due to the load.

Because of the connection between the VM and the GND by the RVMS resistor when the load is removed, the VM pin goes back to the GND potential since the VM pin is shorted the GND pin with the RVMS resistor. Detecting that the VM pin potential is lower than the overcurrent detection voltage (VIOVV خه Ş CrV) خه l i R

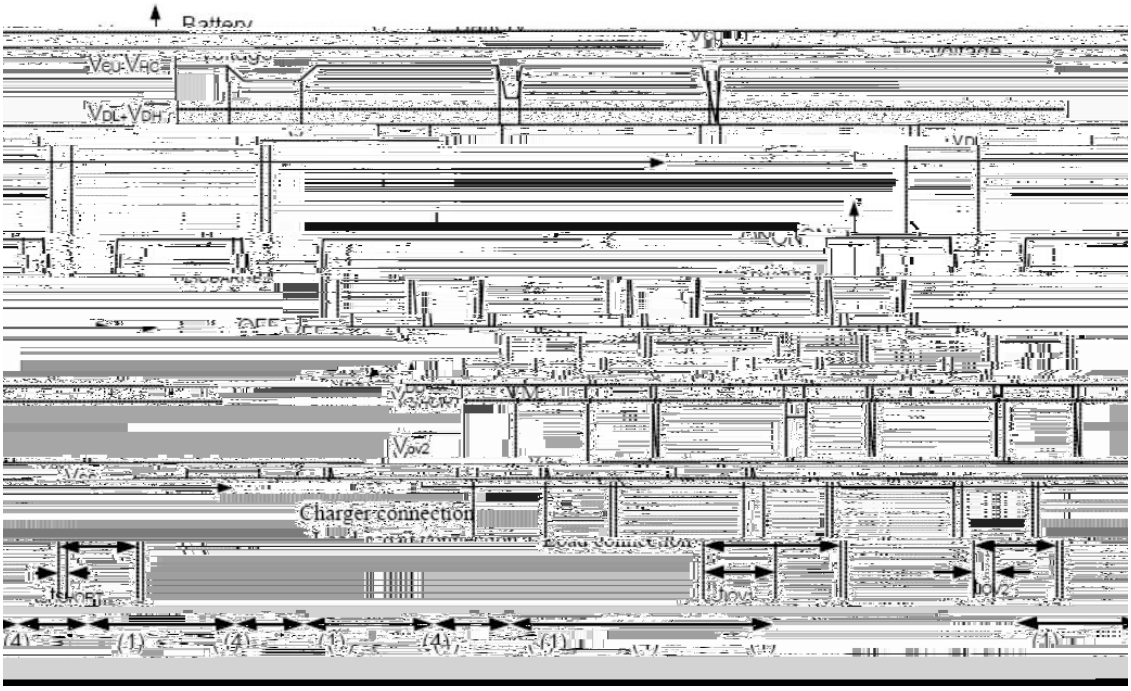
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/ Timing Chart

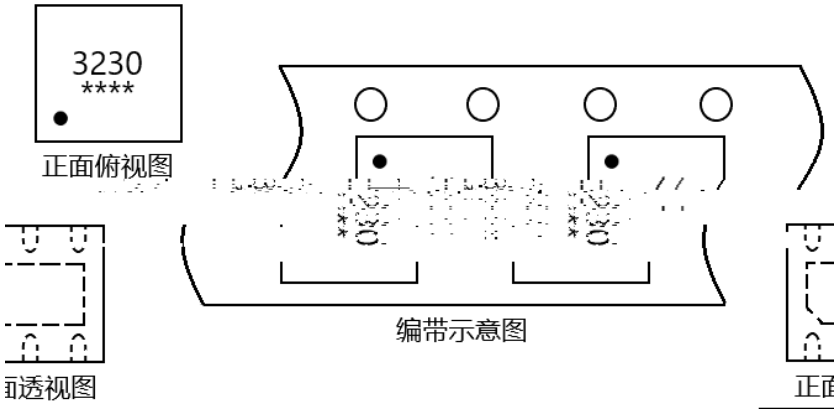
/Overcharge And Overdischarge Detection



/Overdischarge Current Detection



/ Marking Instructions

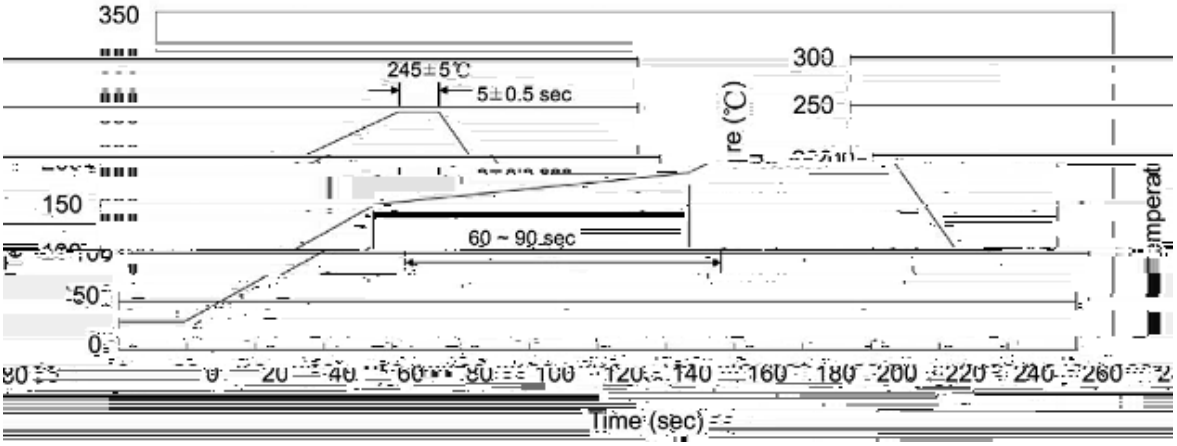


Note:

3230: Product Type.

****: Lot No. Code, code change with Lot No.

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



					Note:
1		150	180	60 90sec;	1.Preheating:150~180 , Time:60~90sec.
2		245±5		5±0.5sec;	2.Peak Temp.:245±5 , Duration:5±0.5sec.
3			2 10	/sec.	3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5	10±1 sec.	Temp.:260±5	Time:10±1 sec

/ Packaging SPEC.

/ REEL

!	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /		( )

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