/ Descriptions

BRCL4055ZF /
DFN2×2-6L BRCL4055ZF
BRCL4055ZF USB
PMOSFET

4.20V 4.20V 1/10
BRCL4055ZF
USB BRCL4055ZF
3uA BRCL4055ZF

BRCL4055ZF is a complete CC/CV linear charger for single cell lithium-ion batteries,It has the function of positive and negative electrode protection for battery.Its DFN2×2-6L package and low external component count make the BRCL4055ZF ideally suited for portable applications. Furthermore, the BRCL4055ZF is specifically designed to work within USB power specifications.

No external sense resistor is needed and no blocking diode is required due to the internal P-MOSFET architecture. Thermal feedback regulates the charge current to limit the die temperature during high power operation or high ambient temperature .The charge voltage is fixed at 4.2V,and the charge current can be programmed externally with a single resistor. The BRCL4055ZF automatically terminates the charge cycle when the charge current drops to 1/10th the programmed value after the final float voltage is reached.

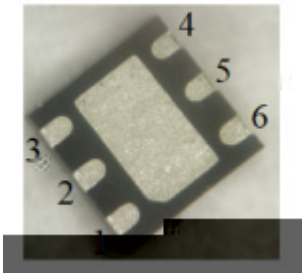
When the input supply (wall adapter or USB supply) is removed the BRCL4055ZF automatically enters a low current state dropping the battery drain current to less than 3 A. Other features include charge current monitor, under-voltage lockout, automatic recharge and two status pins to indicate charge and charge termination.

/ Features

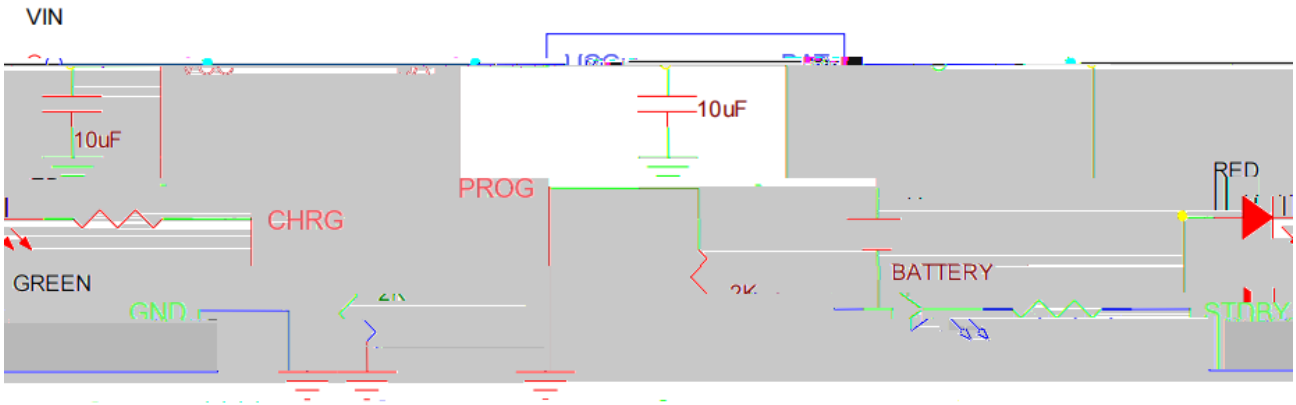
- 4.20V±1%
  Preset 4.20V charge voltage with ±1% accuracy
- 8V
  Maximum input voltage is 8V
- BAT-VIN
  With BAT-VIN anti-backflow function
- 800mA / /
  Linear charge mode,The maximum charging current can reach 800 mA .Trickle /Constant current/Constant voltage three stage charging ,externally adjustable charging charging current
- 0V
  Supports 0V battery charing

É
Short circuit protection,battery polarity reverse polarity protection
É 130 0
Intelligent temperature control technology,charging current will decrease with increasing temperature,130 began to decline,the lowest can be reduced to 0
É
Soft-Start limits inrush current
É USB
Charges single cell Li-ion batteries Directly from USB port
É
Automatic recharge
É 4KV ESD
É
Halogen-free Product.

USB
Suitable for USB power and adapter power,Bluetooth applications and other portable devices.



/ Typical Application



/ Marking

See Marking Instructions.

/ Electrical Characteristics(Ta=25)

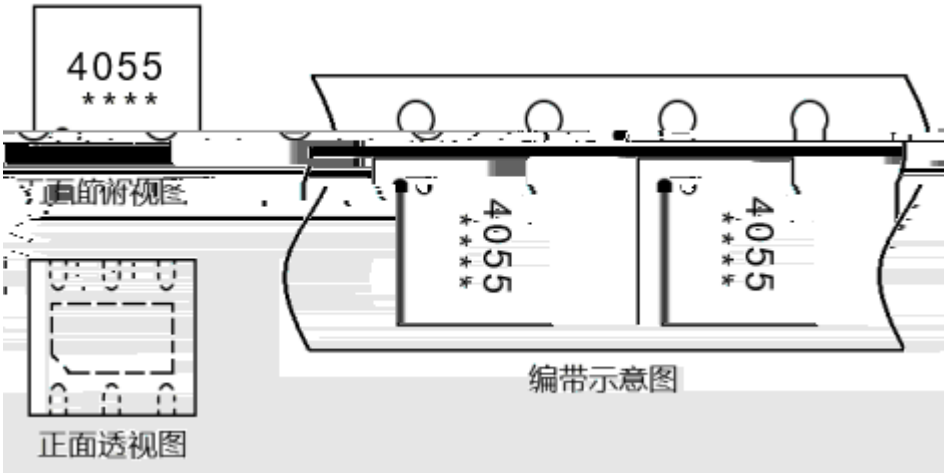
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
	V_{DD}		4	5	6	V
V_{DD}	V_{DD}	V_{DD}>BAT		100		mV
V_{DD}		V_{DD}>BAT		30		mV
	V_{BAT}	V_{DD}=5V	4.158	4.20	4.242	V
BAT	I_{BAT}	Vcc=3.5V Vbat=4.2V		±0.5	±5	μA
	V_{TRKL}	V_{BAT}		2.8		V
	V_{TRHYS}			100		mV
V_{DD}	V_{UV}	V_{DD}		3.7		V
V_{DD}	V_{UVHYS}			200		mV
	V_{msd}			1.2		V
	V_{msdHYS}			50		mV
PROG	V_{prog1}			0.1		V
PROG	V_{prog2}			1.0		V
	OTR	V_{DD}=5V		130		

BRCL4055ZF

/ Package Dimensions



/ Marking Instructions



4055

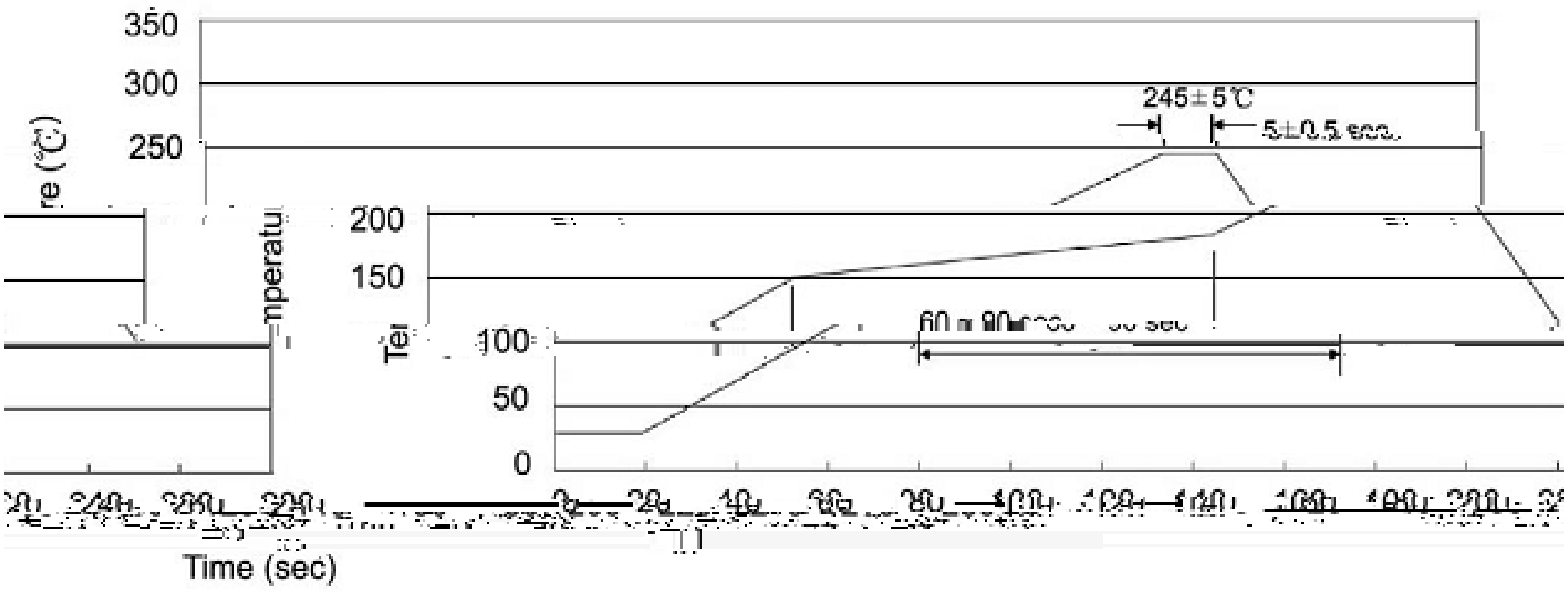
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Note:

4055: 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

Package Type	Units			Dimension (unit mm^3)
	Units/Reel /	Reels/Inner Box / /	ŏ	