BRCL4056BSE /
ESOP-8 BRCL4056BSE
BRCL4056BSE USB
PMOSFET

4.20V 4.20V
1/10 BRCL4056BSE
USB BRCL4056BSE
3uA BRCL4056BSE

BRCL4056BSE 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 ESOP-8 package and low external component count make the BRCL4056BSE ideally suited for portable applications. Furthermore, the BRCL4056BSE 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 BRCL4056BSE 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 BRCL4056BSE automatically enters a low current state dropping the battery drain current to less than 3μA. Other features include charge
current monitor, under-voltage lockout, automatic recharge and two status pins to indicate charge and charge termination.

4.20V±1%
Preset 4.20V charge voltage with ±1% accuracy
8V
Maximum allowable input voltage is 8V
BAT-VIN
With BAT-VIN anti-backflow function
1A MOSFET / /
Linear charge mode,built-in 1A MOSFET,Trickle /Constant current/Constant voltage three stage charging ,externally adjustable charging charging current
0V
Supports 0V battery charing

Short circuit protection,battery polarity reverse polarity protection
USB
Charges single cell Li-ion batteries Directly from USB port

130 0

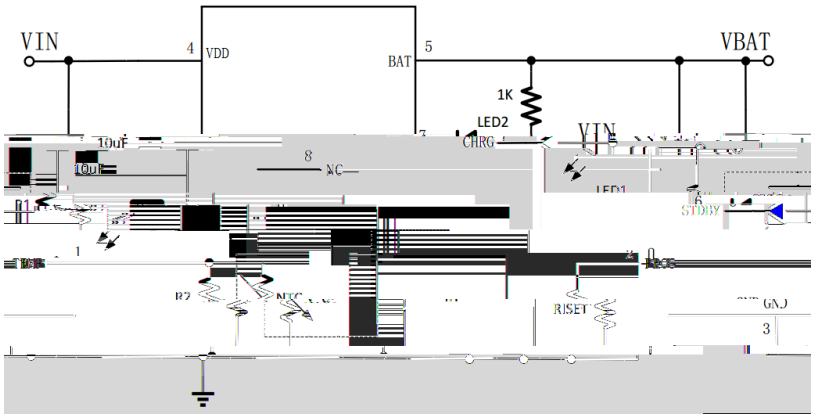
Intelligent temperature control technology,charging current will decrease with increasing temperature,130 began to decline,the lowest can be reduced to 0

Soft-Start limits inrush current

Automatic recharge
4KV ESD HBM mode

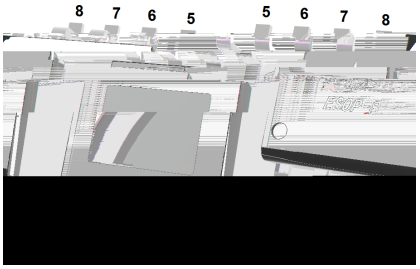
Halogen-free Product.

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



	L1 CHRG	L2 STDBY
/Charging	/Light	/Lights off
/Battery full	/ Lights off	/ Light
TEMP Undervoltage,battery temperature is too high,too low or other fault conditions,or no battery access(use TEMP)	/ Lights off	/ Lights off

BAT 10μF TEMP=GND
BAT termin





1	TEMP	/External temperature sensing pin
2	PROG	/Charge current regulator
3	GND	/Chip ground
4	VDD	5V/External input DC 5V
5	BAT	/Battery input
6	STDBY	/Battery charge completion indicator
7	CHRG	/Charging indicator
8	NC	/Vacant

See Marking Instructions.

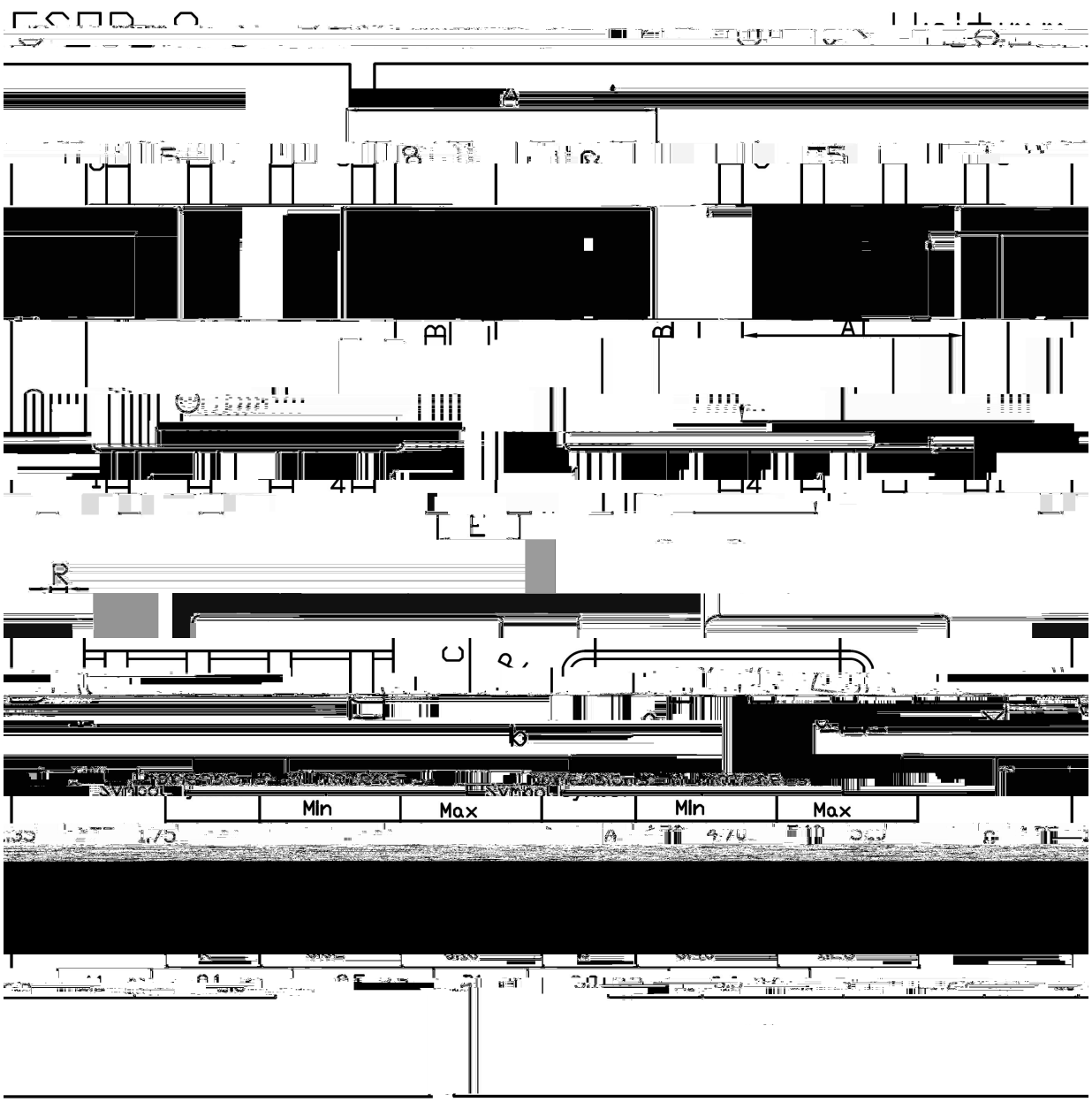
Parameter	Symbol	Rating	Unit
VDD to GND	V_{DD}	-0.3~8	V
BAT to GND	V_{BAT}	-0.3~7	V
CHRG/STDBY to GND	V_{chrg}/V_{stdby}	-0.3~8	V
PROG to GND	V_{prog}	-0.3~8	V
TEMP to GND	V_{teD}		

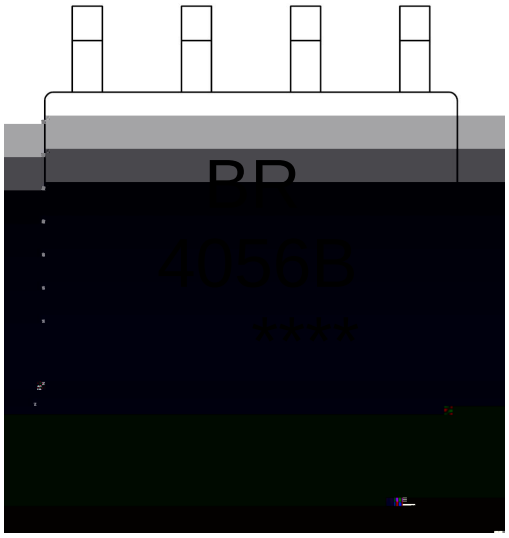
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
	V_{DD}		4	5	6	V
V_{DD}	V_{DD}	V_{DD}>BAT		100		mV
V_{DD}		V_{DD}>BAT		30		mV
	V_{BAT}	V_{DD}=5V	4.158	4.20	4.242	V
BAT	I_{BAT}	Vcc=3.5V Vbat=4.2V		±0.5	±5	μA
	V_{TRKL}	V_{BAT}		2.8		V
	V_{TRHYS}			100		mV
V_{DD}	V_{UV}	V_{DD}		3.7		V
V_{DD}	V_{UVHYS}			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		

BRCL4056BSE

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The BRCL4056BSE is a complete CC/CV linear charger for single cell lithium-ion batteries. CC/CV to charger batter by internal MOSFET. It can deliver up to 1A of charge current .No blocking diode or external current sense resistors required. BRCL4056BSE include two oÂγ qO ᵐ ή' ₨Ø ן א r Î E. j ű uCE † j]o1


Min
Max
Min
Max



BR:

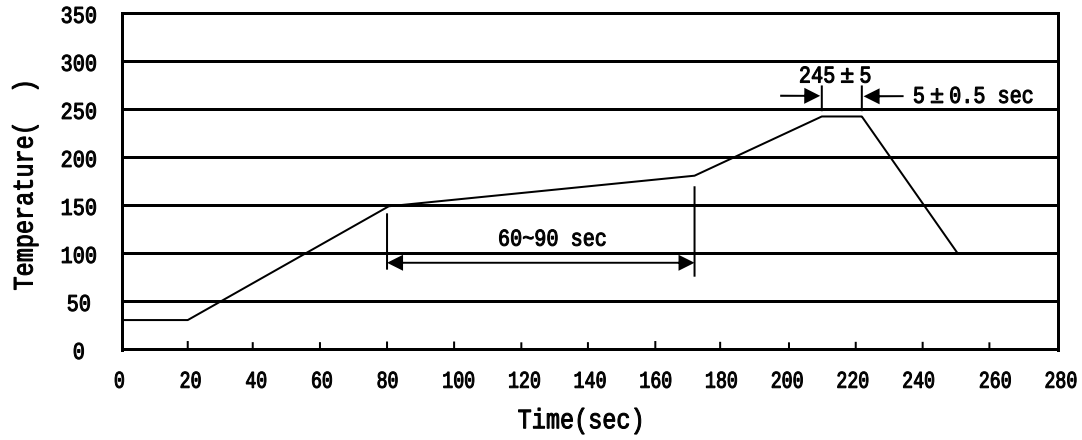
4056B

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Note:

BR:	Company Code
4056B:	Product Type Code
****:	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.

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

/ REEL

Package Type	Units					Dimension		(unit mm³)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOP/ESOP-8	4,000	2	8,000	6	48,000	13 ×12	360×360×50	380×335×366