

/ Descriptions

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 3 A. Other features include charge

current monitor, under-voltage lockout, automatic recharge and two status pins to indicate charge and charge termination.

/ Features



Preset 4.20V charge voltage with $\pm 1\%$ accuracy



Maximum allowable input voltage is 8V

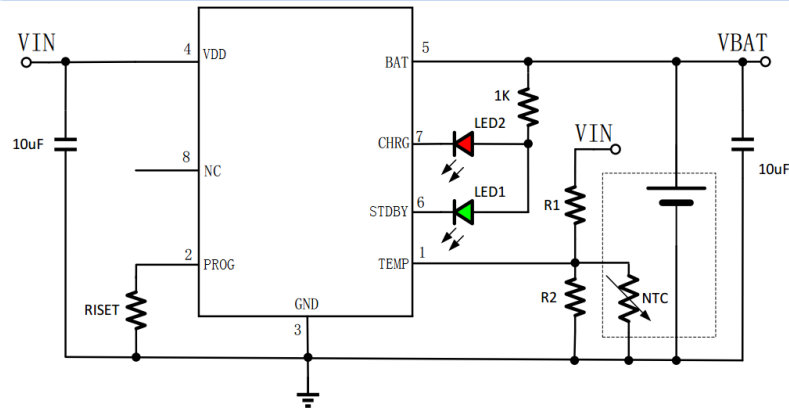


/ Features

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- Halogen-free Product.

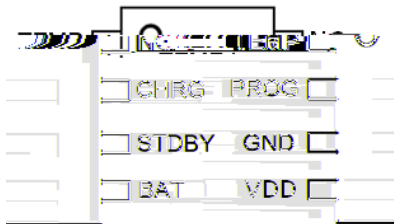
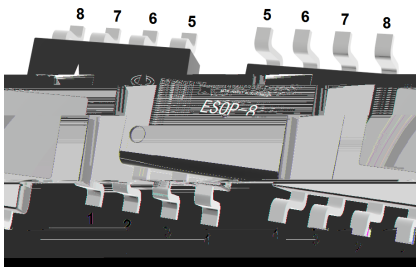
/ Applications

/ Typical Application



/ Indicator light working state

	L1 CHRG	L2 STDBY



	TEMP	
	PROG	
	GND	
	VDD	
	BAT	
	STDBY	
	CHRG	
	NC	

/ Marking

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 _{temp}	-0.3~8	V
Storage Temperature	T _{STG}	-50~+125	℃

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
				±	±	

/ Description of the Principle

BRCL4056BSE

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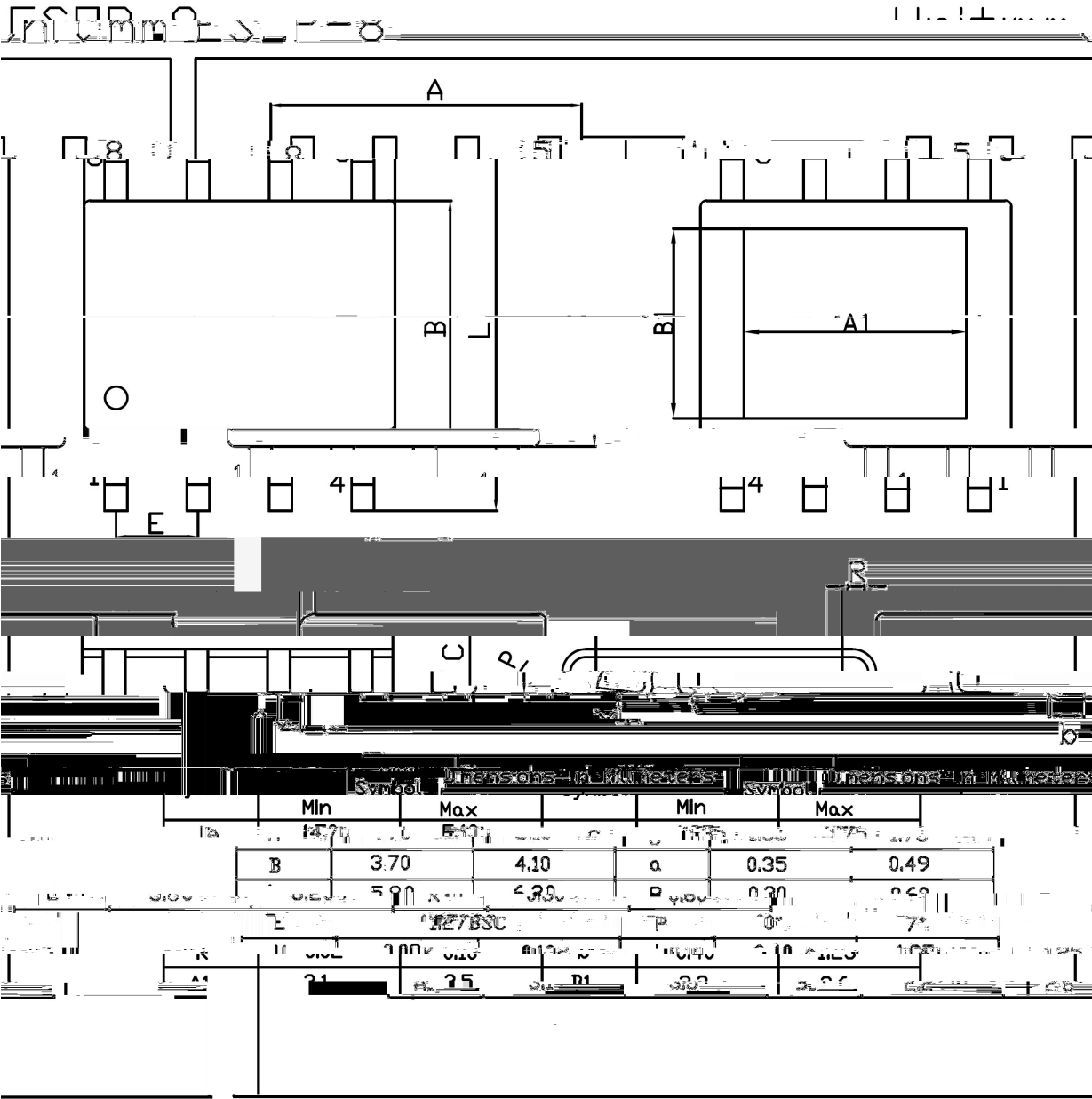
BRCL4056BSE

/ Description of the Principle

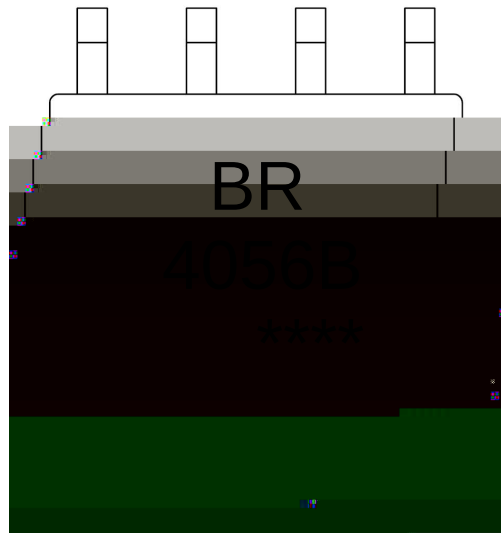
/ Programming Charge Current

$$R_{\text{prog}}(\text{kohm}) = \frac{1200}{I_{\text{bat}}(\text{mA})} \text{ (误差} \pm 10\% \text{)}$$

/ Package Dimensions



/ Marking Instructions



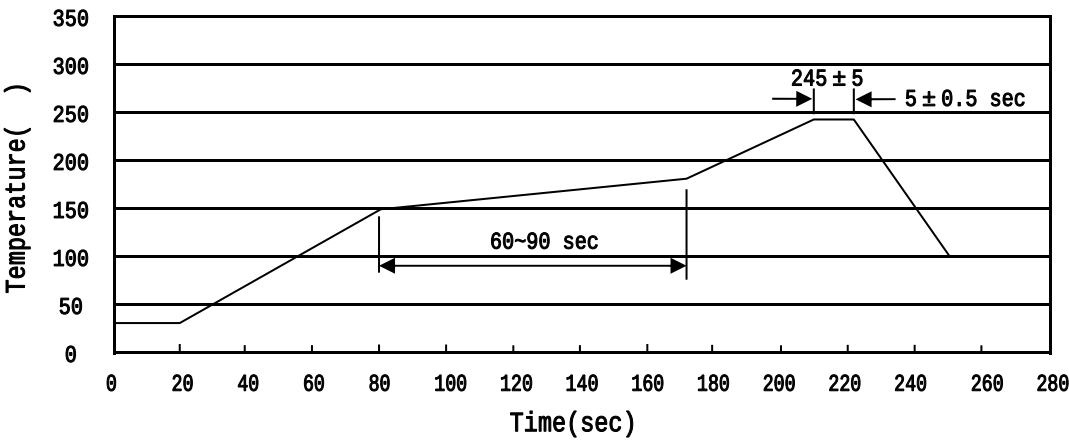
Note:

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.

/ 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	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

/ Notices