

/ Descriptions

BRCL4070SE	1.2A	/	BRCL4070SE
P-MOSFET		4.2V	4.2V
	4.2V	1/10	
BRCL4070SE			

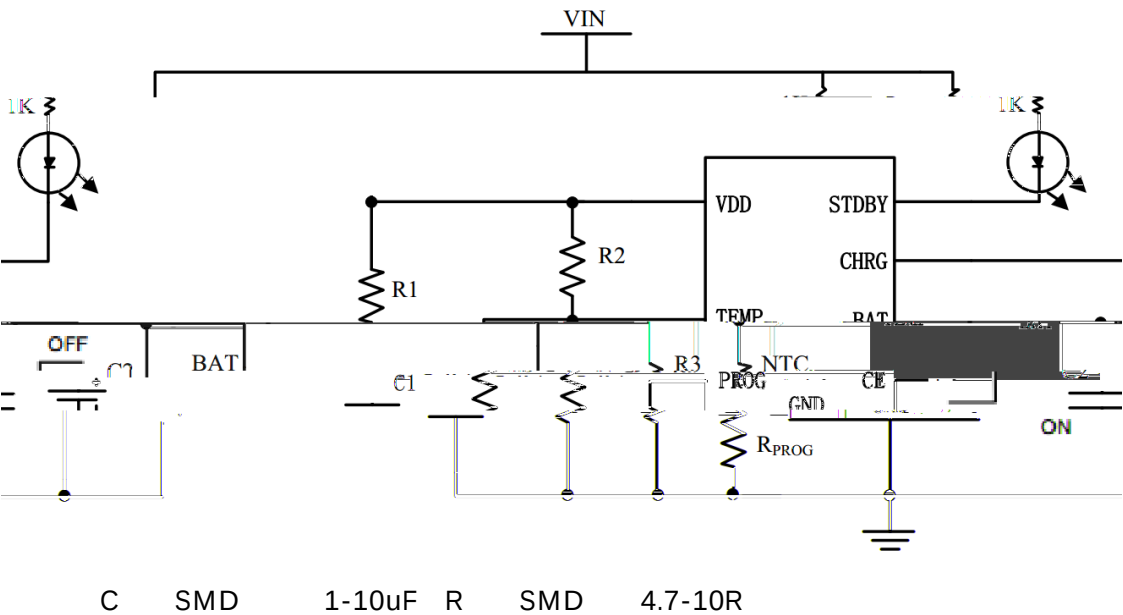
/ Features

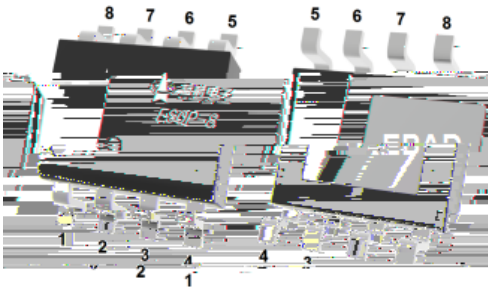
- ◆ 6.8V OVP
- ◆ VDD 36V
- ◆ 0V
- ◆ 1.2A
- ◆ / /
- ◆ 2.8V
- ◆ ESOP-8
- ◆ RoHS

/ Applications

- ◆ USB
- ◆
- ◆
- ◆

/ Application Circuit



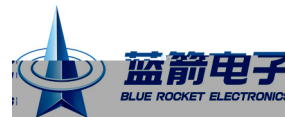


PIN Num.	Symbol	Function
1	TEMP	
2	PROG	
3	GND	
4	VDD	5V
5	BAT	
6	STDBY	
7	CHRG	
8	CE	
EPAD	GND	

PARAMETER	SYMBOL	RATINGS	UNITS
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BRCL4070SE-4.2

Rev.B Mar.-2026



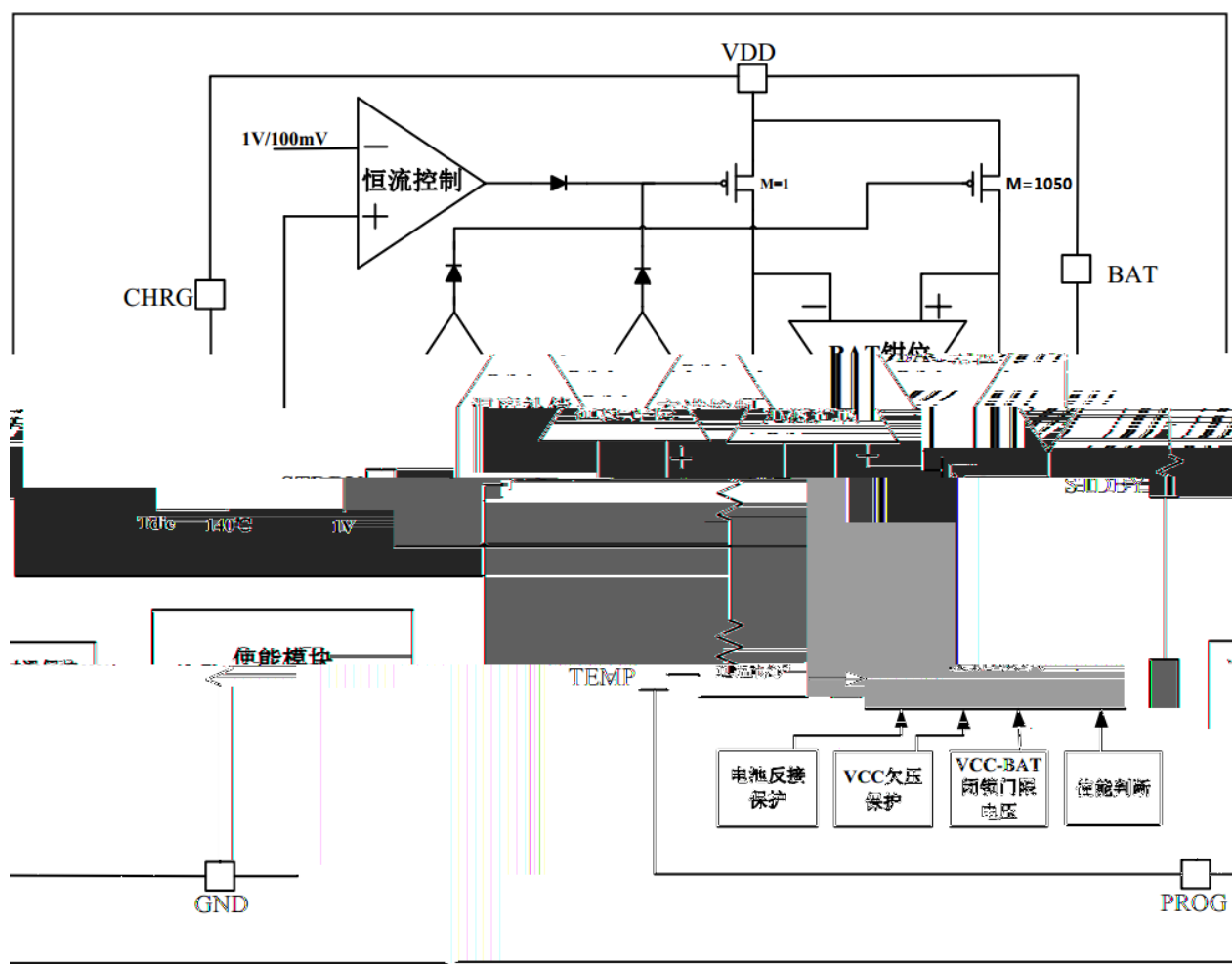
DATA SHEET

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Power Supply						
Input Supply Voltage	V_{DD}		4.5	5.0	6.0	V
V_{DD} Under Voltage Lockout Threshold	V					

/ Electrical Characteristics(Ta=25)

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Indicator Pin Status CHRG/STDBY						
CHRG Pin Output Current	I _{CHRG}	V _{DD} =5V;V _{CHRG} =1V	1	2.5	5	mA
STDBY Pin Output Current	I _{STDBY}	V _{DD} =5V;V _{STDBY} =1V	1	2.5	5	mA
Internal Temperature Compensation						
Internal Temperature Compensation	T _{OTC}			140		
Overtemperature Detection Threshold	T _{OTPH}	TEMP NTC	43%* VDD	45%* VDD		V
Low Temperature Detection Threshold	T _{OTPL}	TEMP NTC		80%* VDD	82%* VDD	V

/ Principle block diagram



/ Function description



BRCL4070SE / BRCL4070SE
USB AC 1.2A , 36V 6.8V



VDD UVLO PROG BAT 1%
2.8V,
1/5
BAT 2.8V
BAT BRCL4070SE
1/10



$I_{CH}=1050/R_{PROG}$ I_{CH}
 R_{PROG} R_{PROG} 200mA
 $R_{PROG}=1050/0.2=5.25K\Omega$
 R_{PROG} 1%
 R_{PROG}

$R_{PROG}(K\Omega)$	$I_{CH}(mA)$
1	1050
1.2	875
1.5	700
5	205
10	100



BRCL4070SE 2ms $T_{RECHARGE}$
BAT 4.05V 80 90

/ Function description



140BRCL4070SE



UVLOVDDVDD
VDD200mV



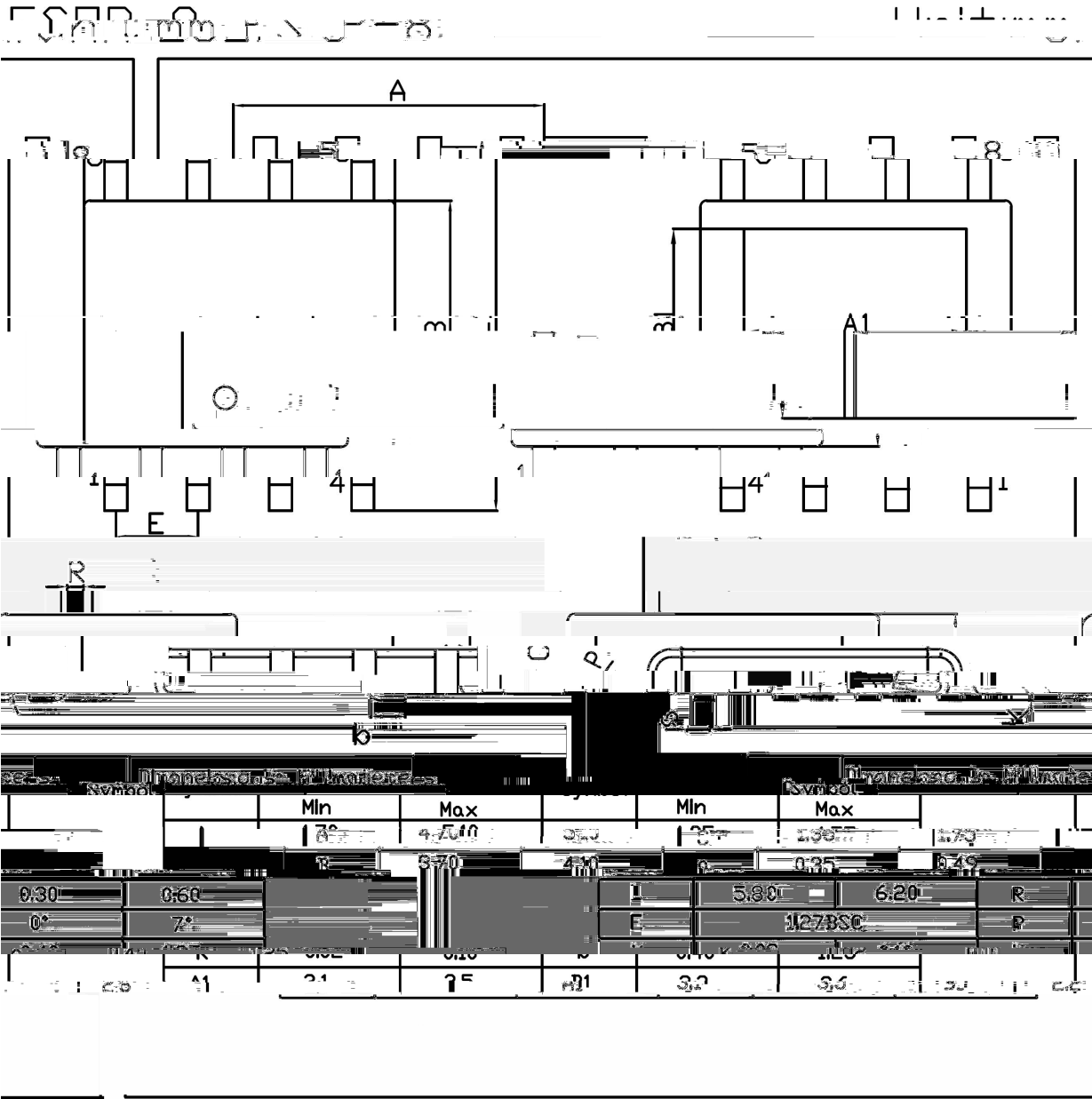
BRCL4070SEVDD
VDD



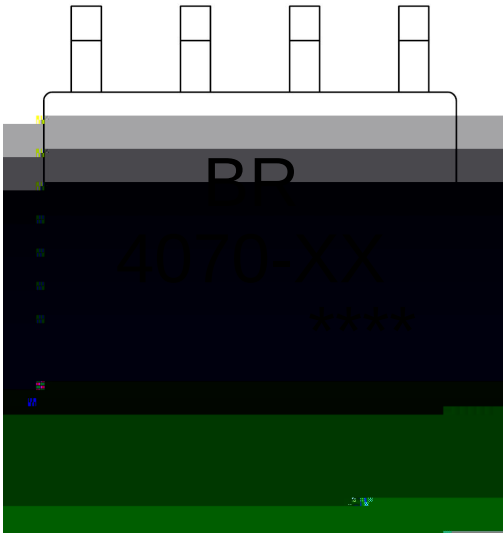
BRCL4070SECHRG STDBY
CHRG STDBYCHRG STDBY

	CHRG/	STDBY/
(TEMP)		
VDD		

/ Package Dimensions



/ Marking Instructions



BR
4070
XX

BRCL4070SE-4.2	BR/4070-42/****

() / 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
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/ Packaging SPEC.

/ REEL

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