

BRCL4070SE-4.2

Rev.B Mar.-2026

/ Descriptions

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

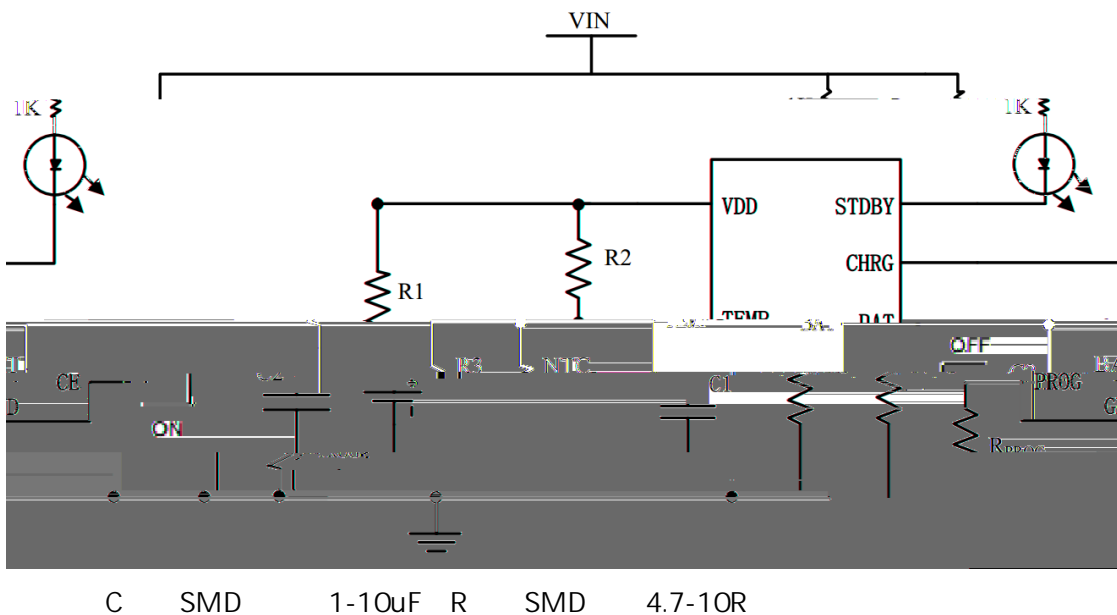
/ Features

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

/ Applications

- ◆ USB
- ◆
- ◆
- ◆

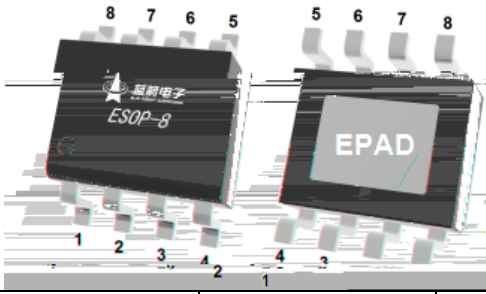
/ Application Circuit



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/ Pinning



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

/ Absolute Maximum Ratings(Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNITS
VDD/CHRG/STDBY Pin Voltage	V _{VDD/CHRG/STDBY}	-0.3~30	V
VCE Pin Voltage	V _{CE}	-0.3~36	
BAT Pin Voltage	V _{BAT}	-5~15	
PROG Pin Voltage	V _{PROG}	-0.3~6	
TEMP Pin Voltage	V _{TEMP}	-0.3~25	
Operating Ambient Temperature Range	T _{OP}	-40~+85	°C
Storage Temperature	T _{stg}	-55~+150	°C
Lead Temperature (Soldering, 10s)	T _{solder}	260	°C
ESD	HBM	2000	V
	MM	200	V

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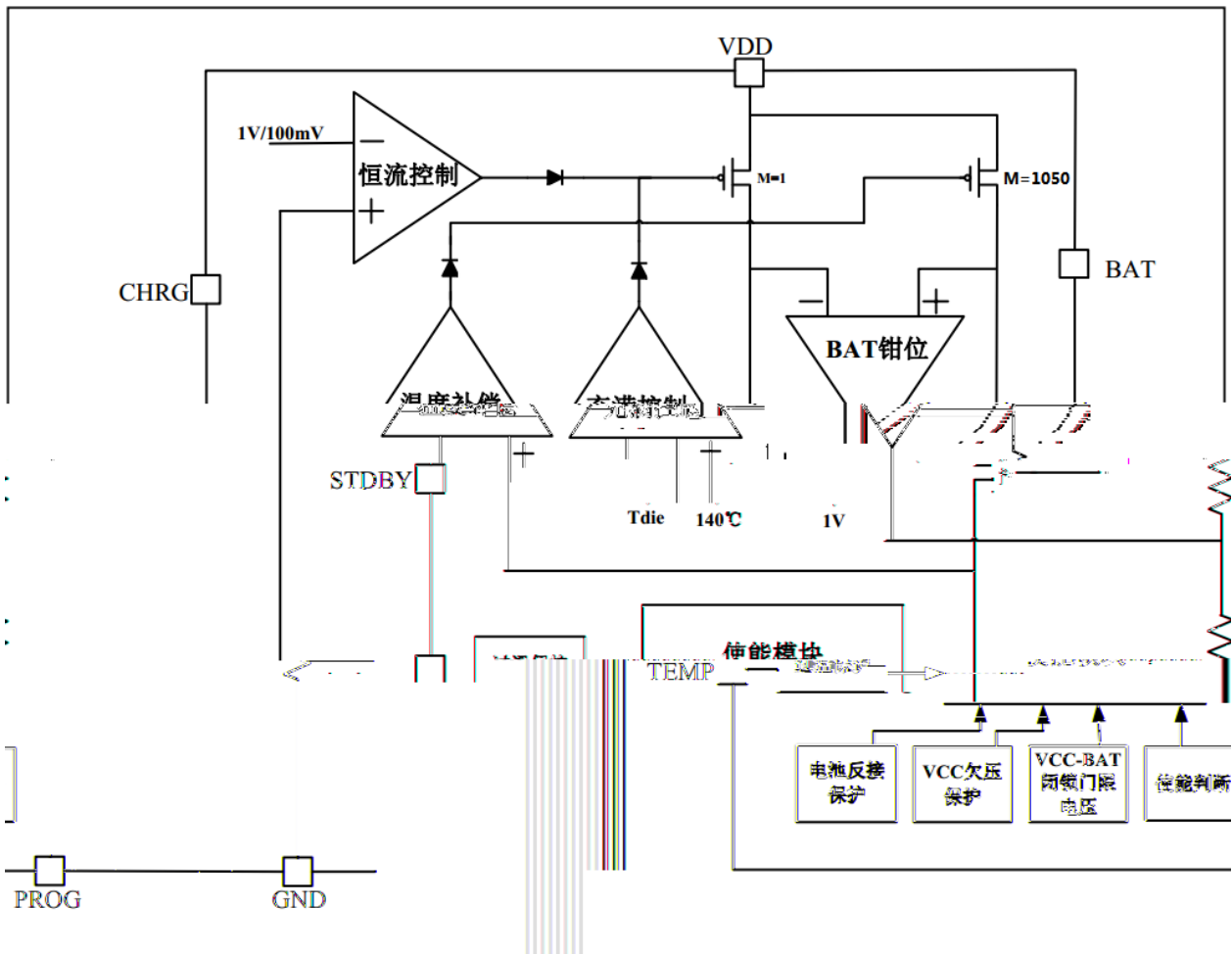
DATA SHEET

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°C)

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Indicator Pin Status CHRГ/STDBY						
CHRГ Pin Output Current	I _{CHRГ}	V _{DD} =5V;V _{CHRГ} =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%* V _{DD}	45%* V _{DD}		V
Low Temperature Detection Threshold	T _{OTPL}	TEMP NTC		80%* V _{DD}	82%* V _{DD}	V

/ Principle block diagram



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DATA SHEET

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

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

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

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DATA SHEET

/ Function description



140

BRCL4070SE



UVLO

VDD
VDD

VDD
200mV



BRCL4070SE

VDD

VDD



BRCL4070SE
CHRG

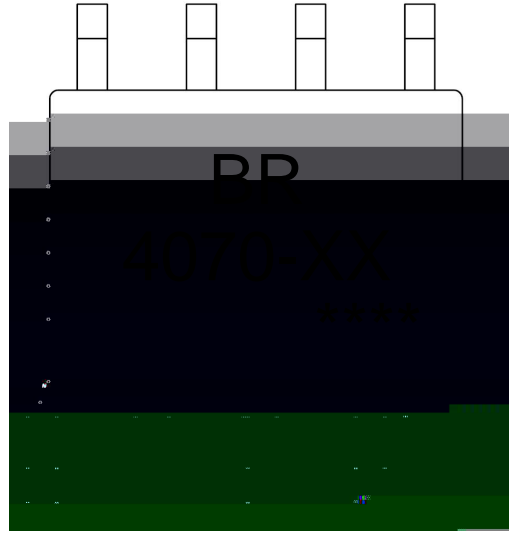
STDBY

CHRG STDBY

CHRG STDBY

	CHRG/	STDBY/
(TEMP)		
VDD		

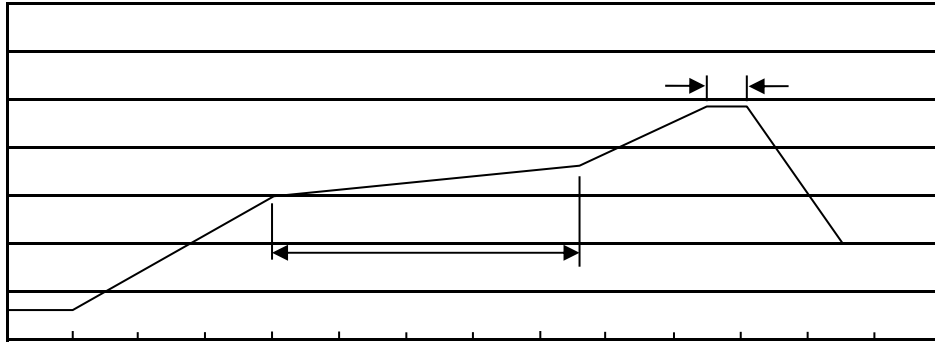
/ Marking Instructions



BR
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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

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOP/ESOP-8	4,000	2	8,000	6	48,000	13" x12	360x360x50	380x335x366

/ Notices

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