

/ Descriptions

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

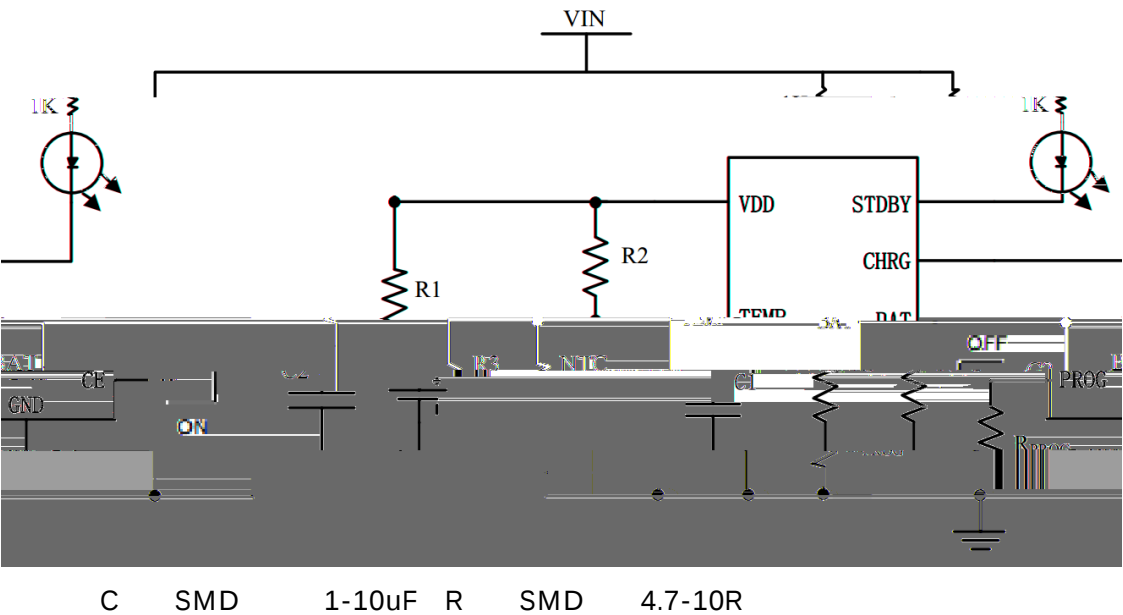
/ Features

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

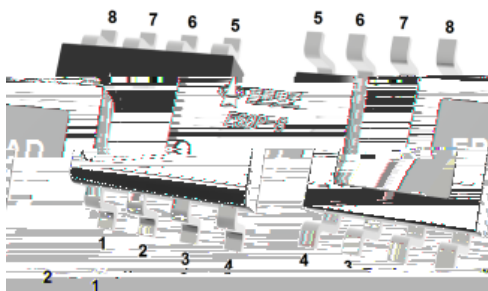
/ Applications

- ◆ USB
- ◆
- ◆
- ◆

/ Application Circuit



/ 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℃)

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	℃
Storage Temperature	T _{stg}	-55~+150	℃
Lead Temperature (Soldering, 10s)	T _{solder}	260	℃
ESD	HBM	2000	V
	MM	200	V

BRCL4070SE-4.2

Rev.B Mar.-2026



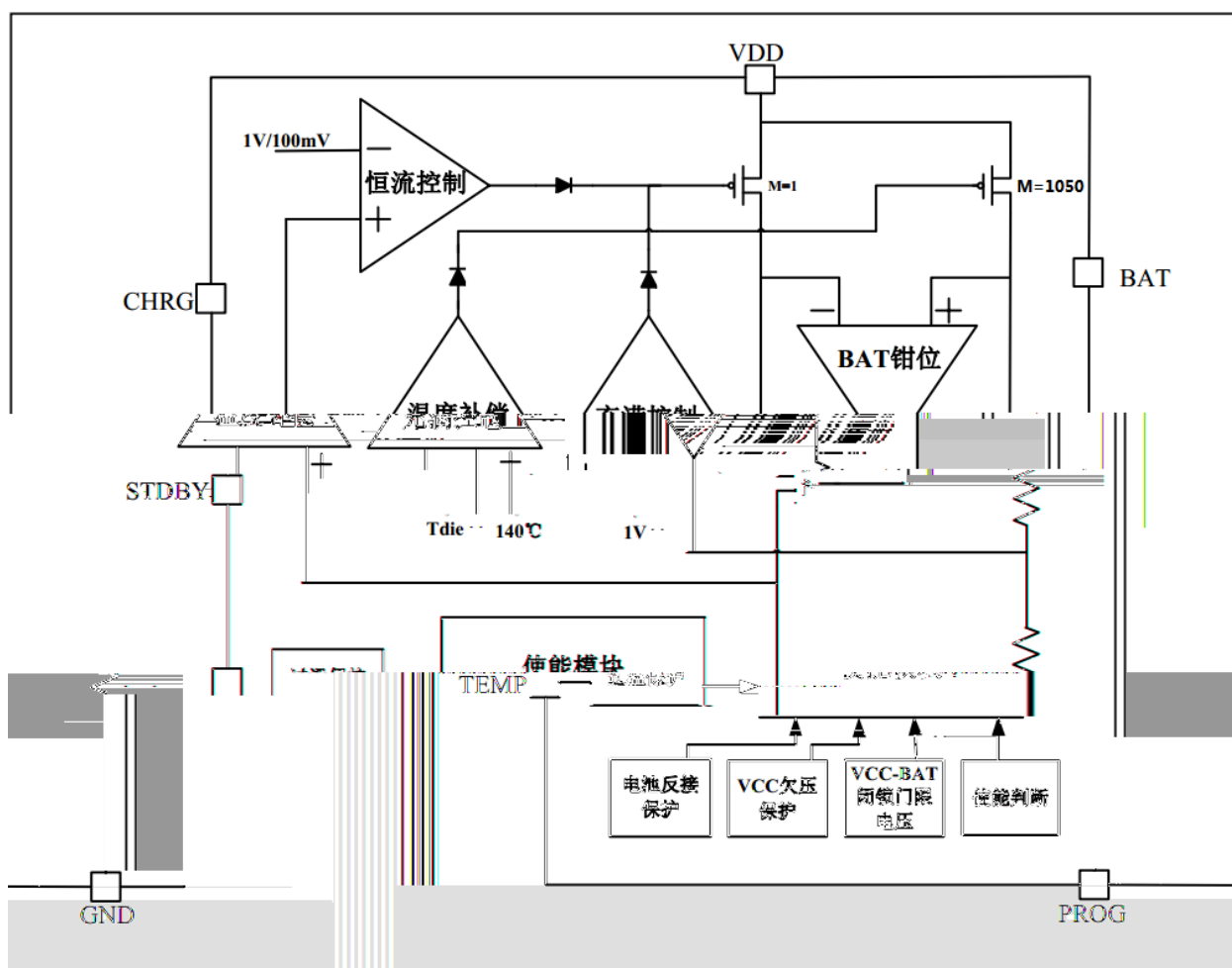
DATA SHEET

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°C)

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

/ Principle block diagram



◆
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%

/ Function description



140BRCL4070SE



UVLOVDDVDD
VDD200mV



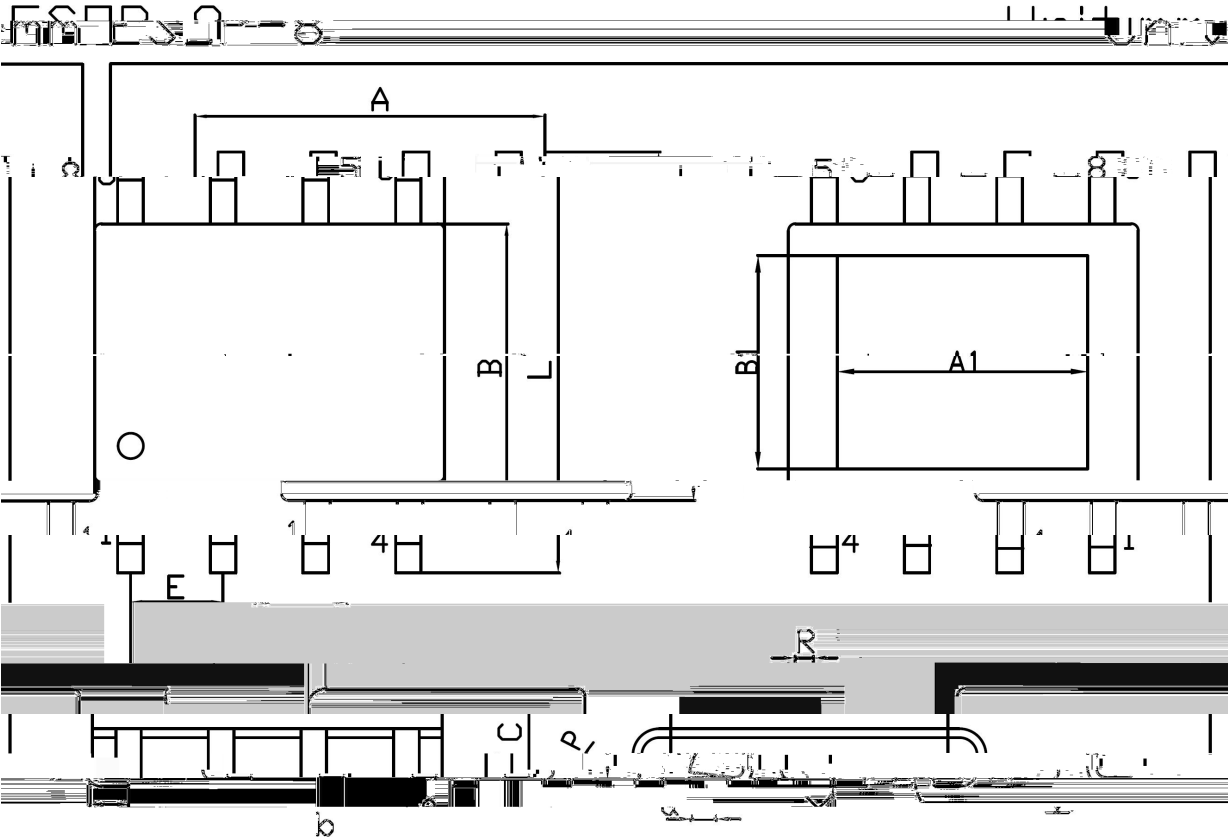
BRCL4070SEVDD
VDD



BRCL4070SECHRG STDBY
CHRG STDBYCHRG STDBY

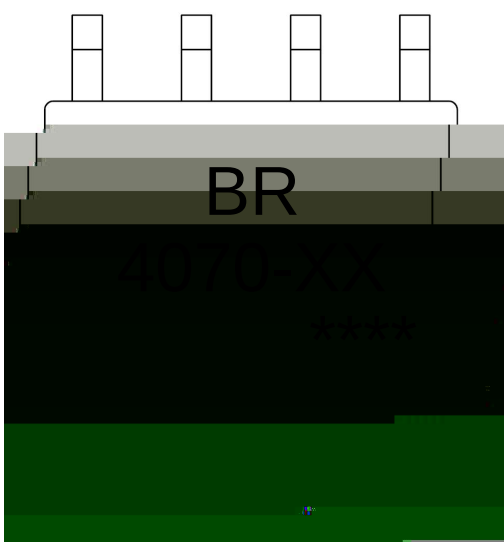
	CHRG/	STDBY/
(TEMP)		
VDD		

/ Package Dimensions



Units	Symbol	Dimensions in Millimeters		Dimensions in Millimeters	
		Min	Max	Min	Max
	A	4.70	7.10		
	B	3.70	4.10	a	0.35 0.49
	C	5.00	6.20	b	0.30 0.40
	D	1.27	1.27		
	E	0.25	0.25		
	R	0.25	0.25		

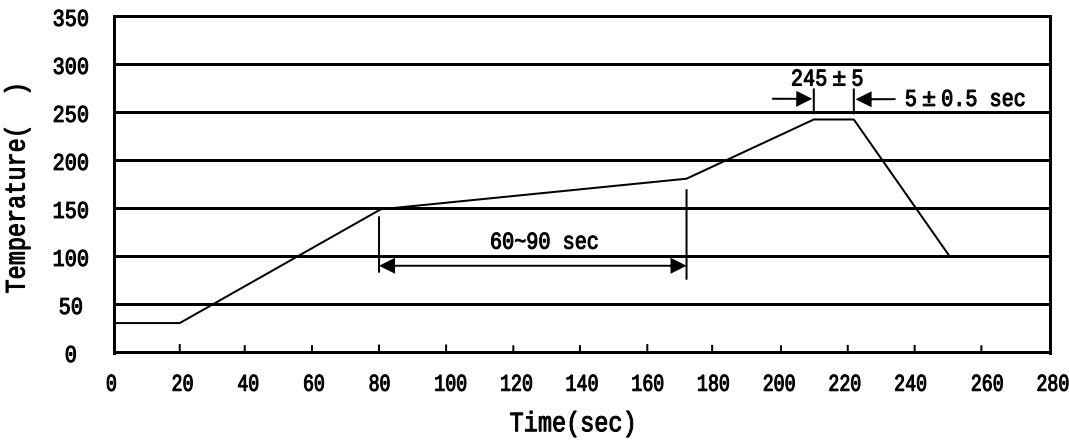
/ Marking Instructions



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

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm³)		
	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" ×12	360×360×50	380×335×366

/ Notices

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