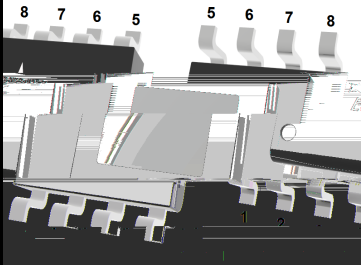
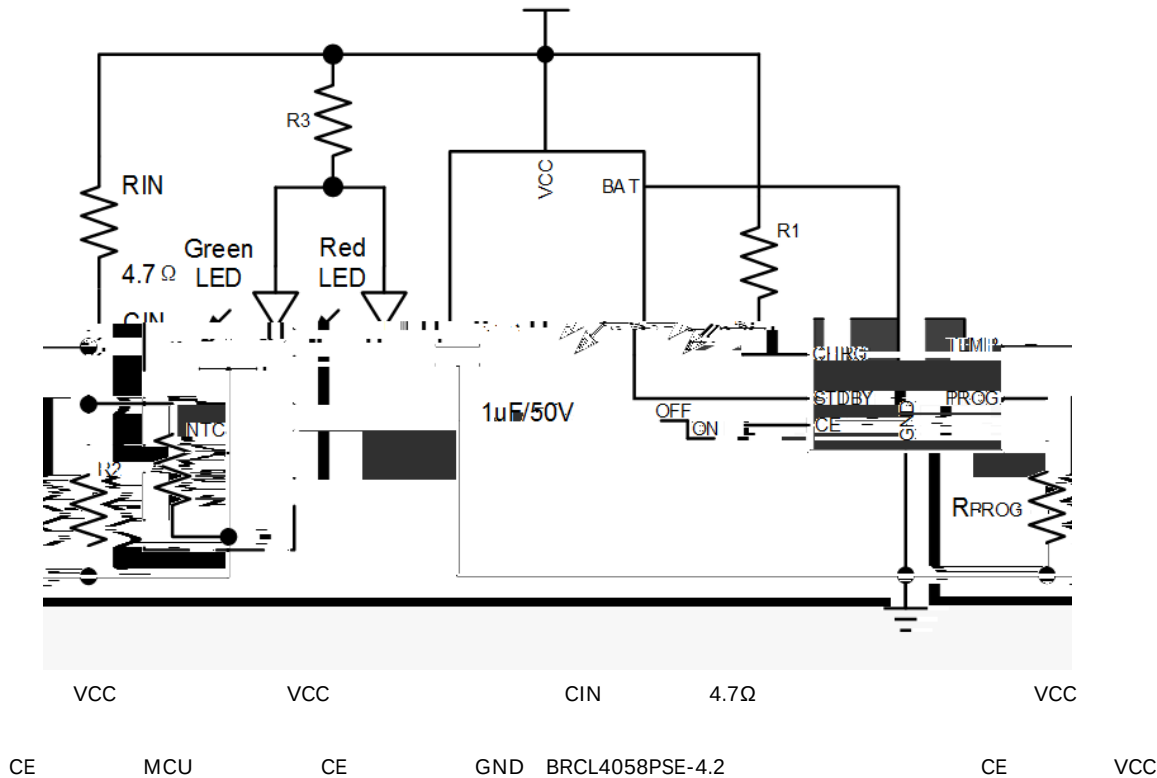


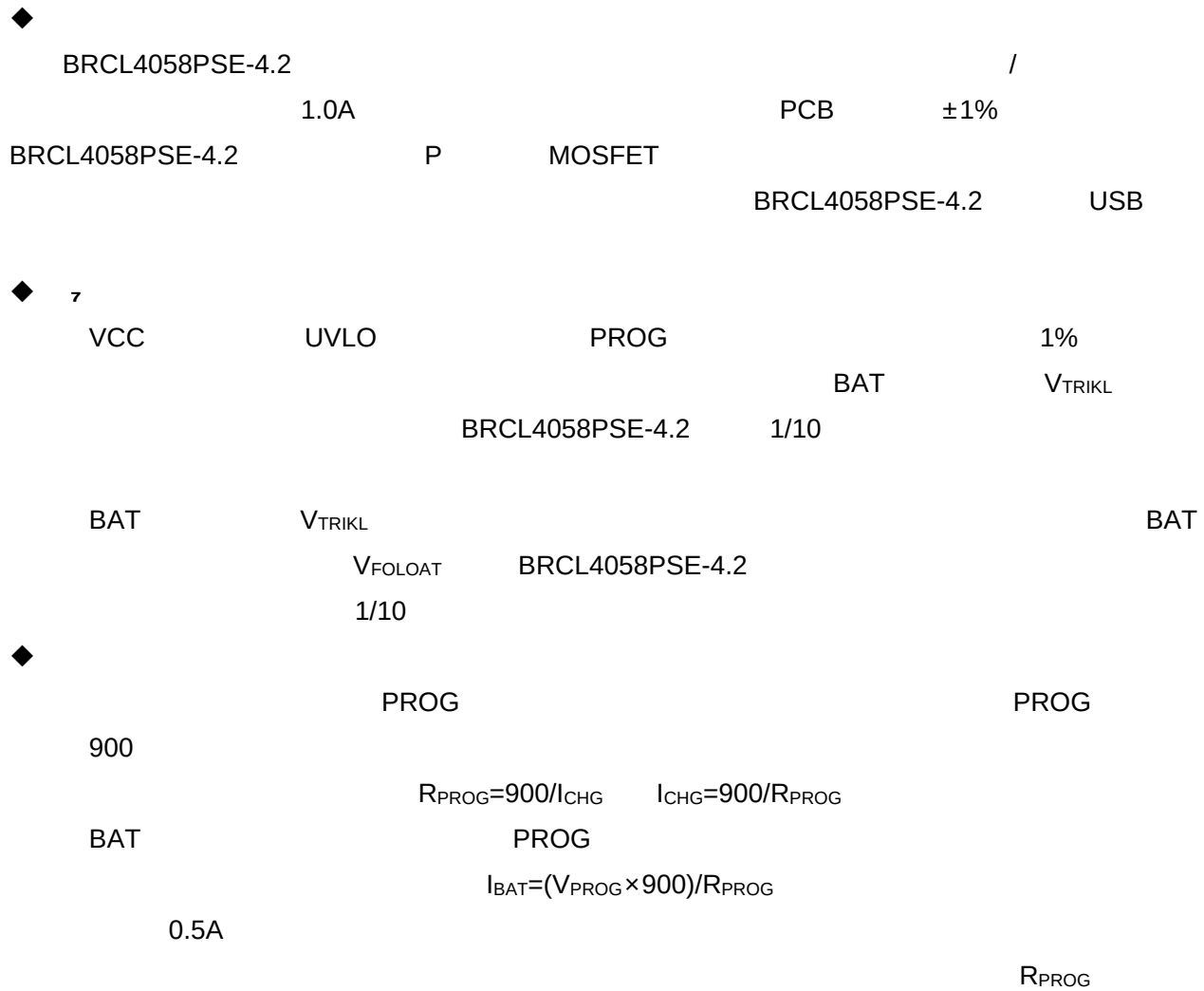
3 May.-2025



1	TEMP	
2	PROG	GND
3	GND	
4	VCC	
5	BAT	
6	STDBY	
7	CHRG	
8	CE	

Rev.B May.-2025

V _{CC} Under voltage Lockout Hysteresis	V _{CC_UV_HYS}		100	200	300	mV
V _{CC} -V _{BAT} Lockout Threshold	V _{ASD}	V _{CC} from Low to High	100	125	150	mV
		V _{CC} from High to Low	30	65	100	mV
C/10 Charging Termination Current	I _{TERM}	R _{PROG} =1.02k	90	100	110	mA
R _{PROG} voltage at Constant Current Mode	V _{PROG}	R _{PROG} =1.02k, Current mode	0.9	1.0	1.1	V
CHRG outputs low voltage	V _{CHRG}	I _{CHRG} =5mA		0.3	0.6	V
STDBY outputs low voltage	V _{STDBY}	I _{STDBY} =5mA		0.3	0.6	V

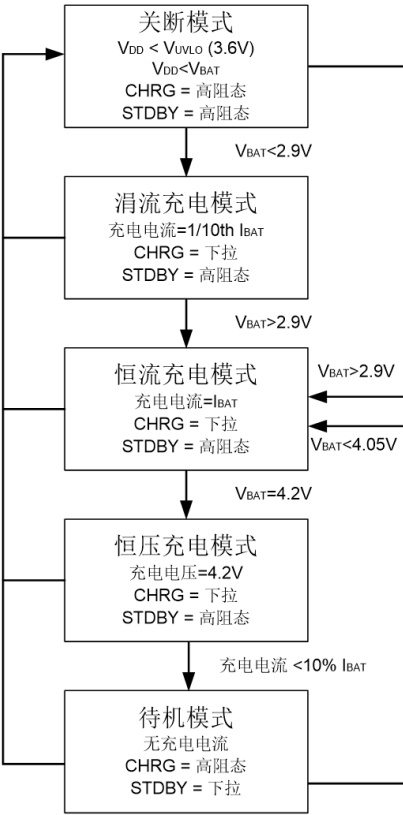


R _{PROG} (K)	I _{CHG} (mA)
3.00	305
2.32	400
2.05	450
1.91	485
1.80	520
1.58	590
1.47	640
1.37	690
1.27	755
1.21	800
1.10	910
1.02	1000



6

1/10
PROG 100mV t_{TERM}
BRCL4058PSE-4.2
1.8ms
55 μ A C/10
BAT
100mV
1.8ms t_{TERM}
1/10 DC 1/10
BRCL4058PSE-4.2
BAT
BAT
BRCL4058PSE-4.2 BAT 4.05V
 V_{RECHRG}
PROG



◆

BRCL4058PSE-4.2			CHRG STDBY BRCL4058PSE-4.2		
CHRG		CHRG		STDBY	
CHRG STDBY					
TEMP		BAT		10μF	
LED	LED	1-4s			
			LED CHRG		LED STDBY
BAT 10uF (TEMP=GND)			LED LED 1-4s		

◆

145

BRCL4058PSE-4.2

BRCL4058PSE-4.2

◆

BRCL4058PSE-4.2

TEMP TEMP NTC

BRCL4058PSE-4.2 TEMP VLOW VHIGH

BRCL4058PSE-4.2 VLOW 45%×Vcc VHIGH

80%×Vcc

TEMP VTEMP<VLOW VTEMP>VHIGH

TEMP VTEMP VLOW VHIGH TEMP

R1 R2

NTC RTL TL RTH TH RTL RTH

TL TEMP

$$V_{TEMP1} = \frac{R2 || R_{TL}}{R1 + R2 || R_{TL}} V_{IN}$$

TH	TEMP
----	------

$$V_{TEMP1} = \frac{R2 || R_{TH}}{R1 + R2 || R_{TH}} V_{IN}$$

$$V_{TEMP1} = V_{HIGH} \times k2 \times V_{cc}(k2 = 0.8) \\ = V_{LOW} = k1 \times V_{cc}(k1 = 0.45) \quad V_{TEMPH} :$$

$$R1 = \frac{RTL \times RTH(k2 - k1)}{(RTL - RTH)k2 \times k1}$$

$$\text{RTL} \times \text{RTH}(k_2 - k_1)$$

PTC

$$R1 = \frac{RTL \times RTH(k2 - k1)}{(RTH - RTL)k2 \times k1}$$

$$R2 = \frac{RTL \times RTH(k2 - k1)}{RTH(k1 - k2 \times k1) - RTL(k2 - k2 \times k1)}$$

 V_{CC}

R1 R2 RTH RTL

RTH RTL

R2

R1

R1

 $\alpha \quad \beta$

VCC

UVLO
100mV

UVLO

VCC

BRCL4058PSE-4.2

1.8ms

BAT

4.05V

80% 90%

CHRG

ESR

 1Ω

PROG

PROG

PROG

RPROG

20k Ω

PROG

PROG

100kHz

PROG

CPROG

RPROG

$$R_{\text{PROG}} \leq \frac{1}{2\pi \cdot 10^5 \cdot C_{\text{PROG}}}$$

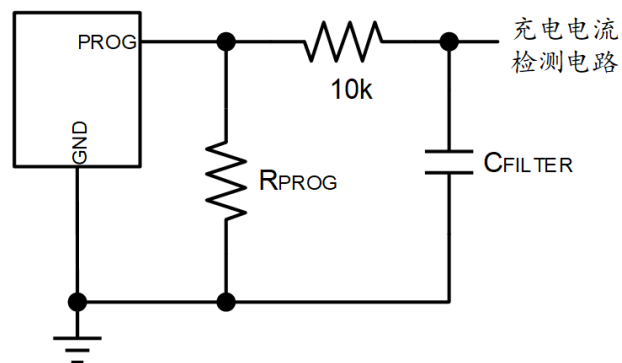
BAT

PROG

RC

PROG

10k



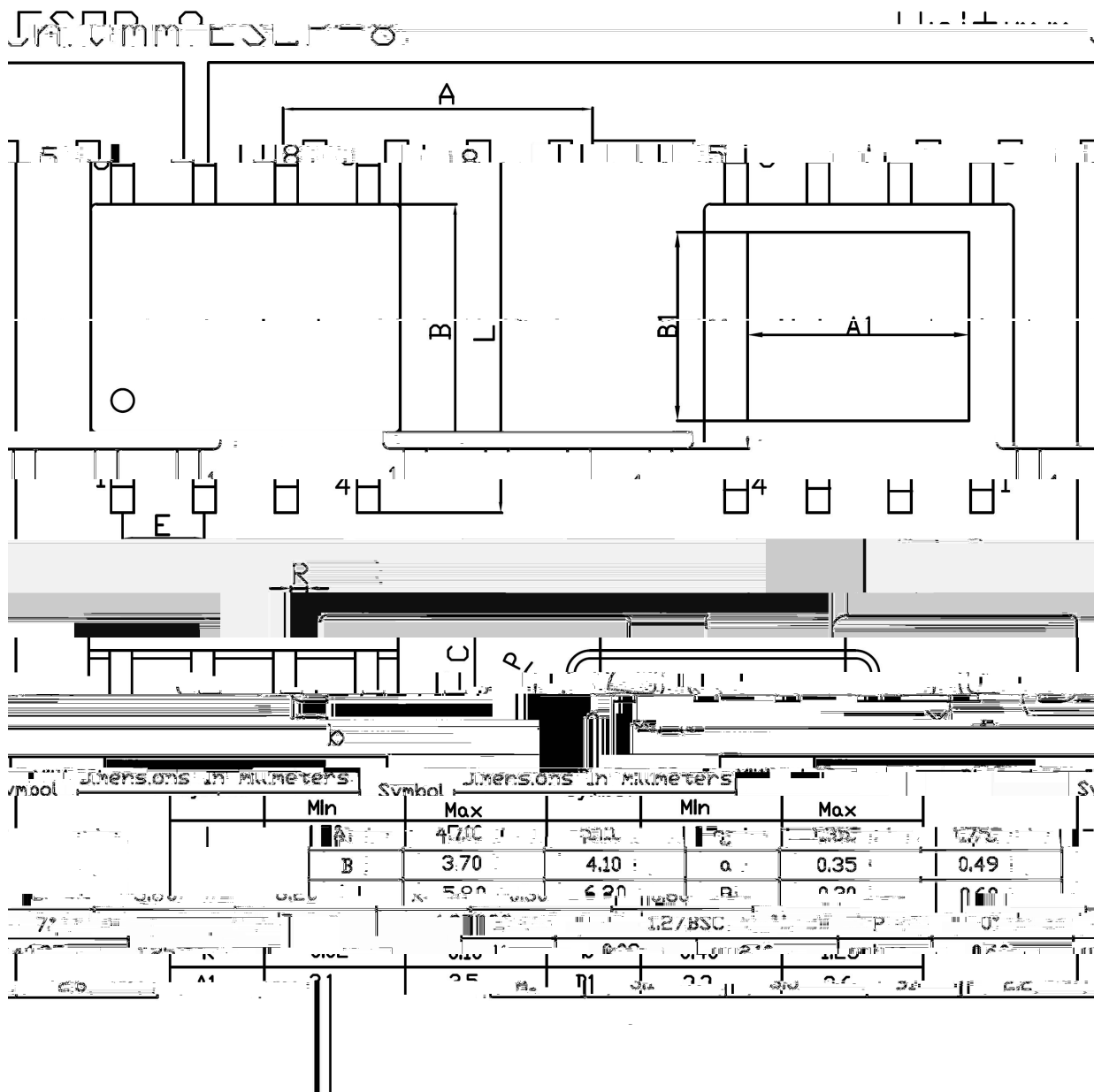
PCB

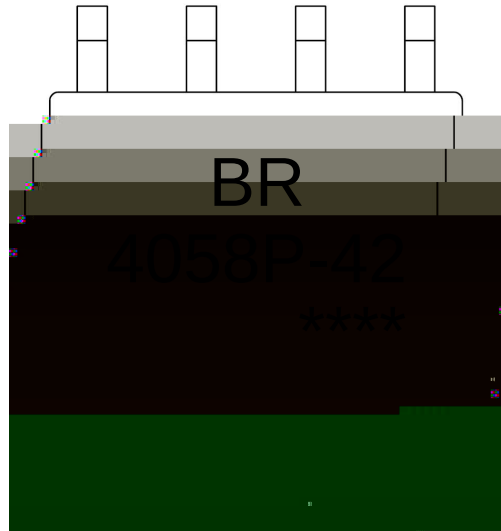
PD

$$T_J = P_D \times \theta_{JA} + T_A$$

◆

IC	PD	$V_{IN}-V_{BAT}$	I_{CHG}	:
		$P_D= V_{IN}-V_{BAT} * I_{CHG}$		
	3.6V			
	4.0V		5%~10%	PD





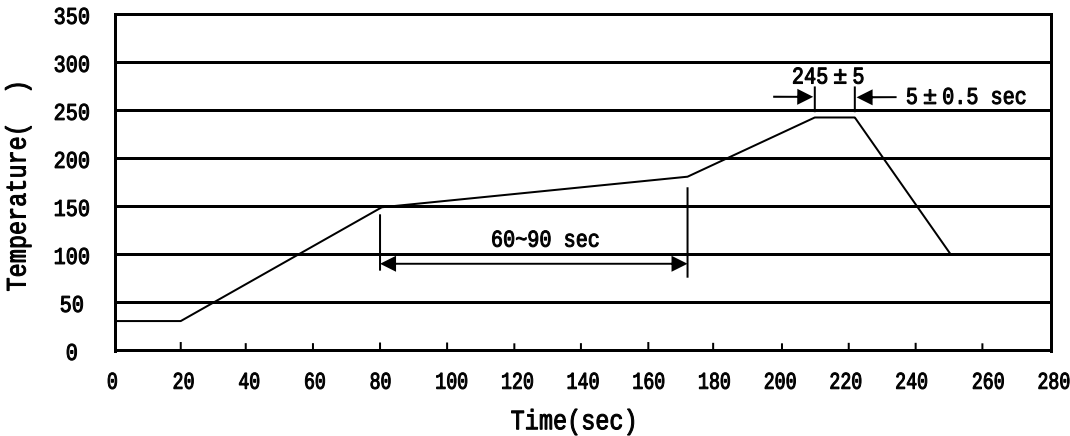
BR

4058P

42

4.2v

Whp shrdwxrh Prrioh irr IU Uhiorw Vroghriq j+Pe-Frhh,



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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱		盒	箱
SOP/ESOP-8	4,000	2	8,000	6	48,000	13 ×12	360×360×50	380×335×366

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