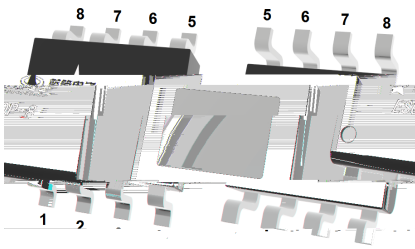
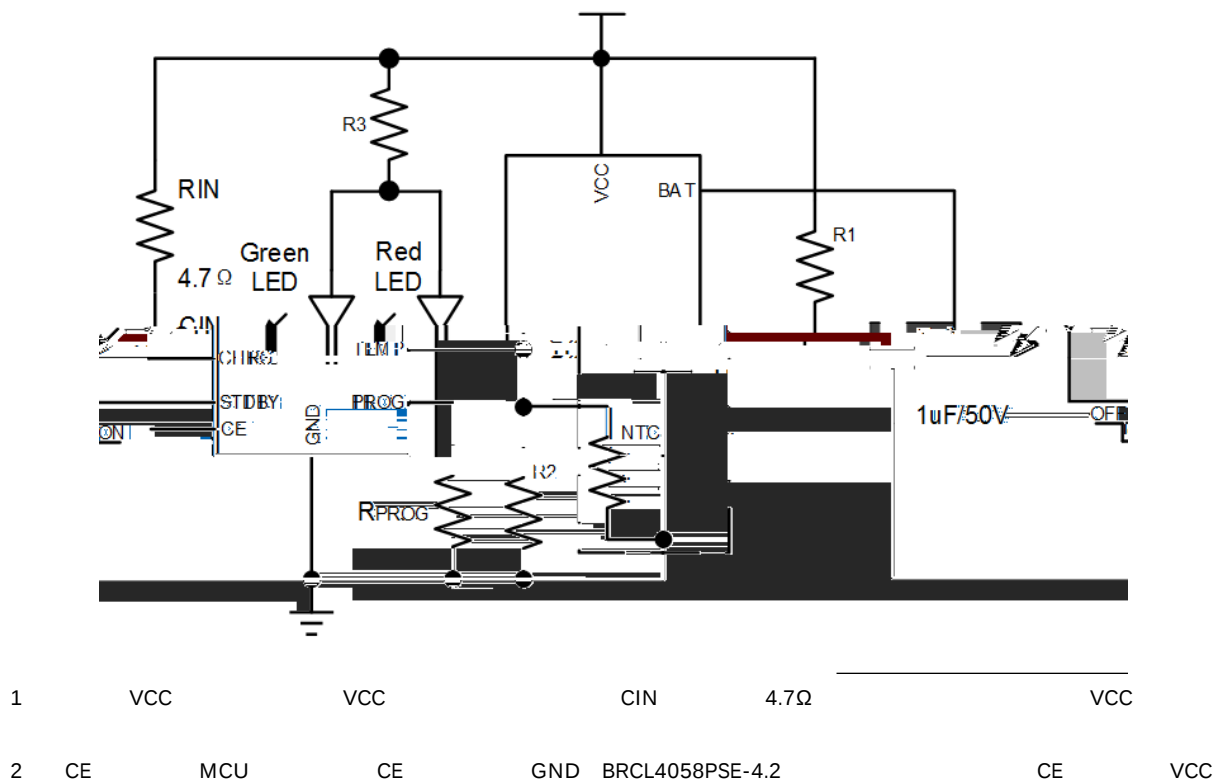
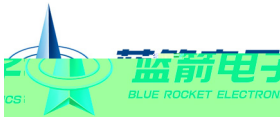


BRCL4058PSE-4.2									
BRCL4058PSE-4.2 /									
BRCL4058PSE-4.2					USB				
BRCL4058PSE-4.2					PMOSFET				
4.2V					PROG		1.0A		
BRCL4058PSE-4.2					2μA				
BRCL4058PSE-4.2									
BRCL4058PSE-4.2					ESOP-8		6		
BRCL4058PSE-4.2					-40°C to +85°C		PCB		
36V		6.1V							
1%		4.2V							
BAT-VDD									
<2μA									
55μA									
0V									
1.0A									
/		/							
RoHS									
PDAs					MP3				
USB									



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



PARAMETER

BRCL4058PSE-4.2

Rev.B May.-2025

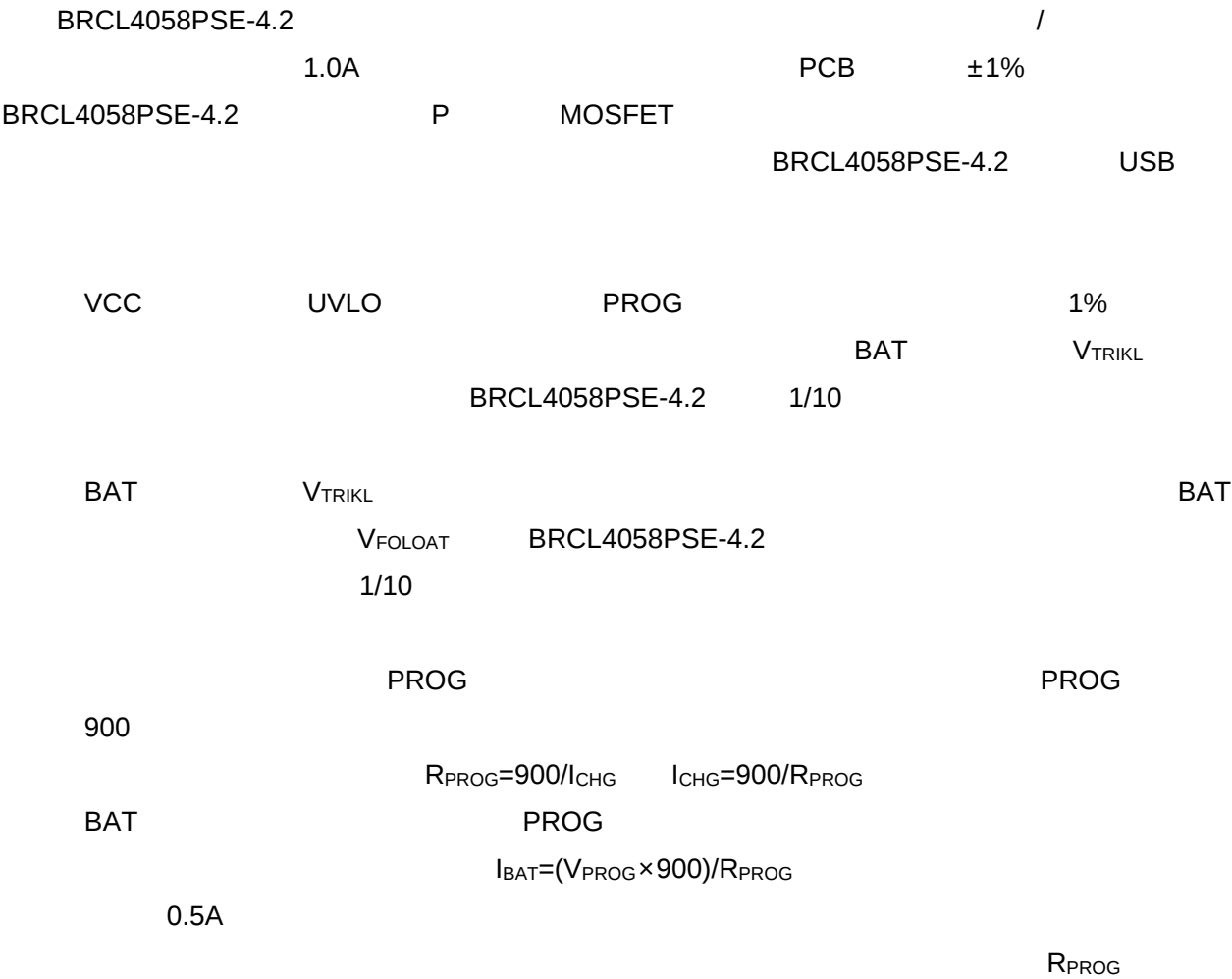


DATA SHEET

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
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

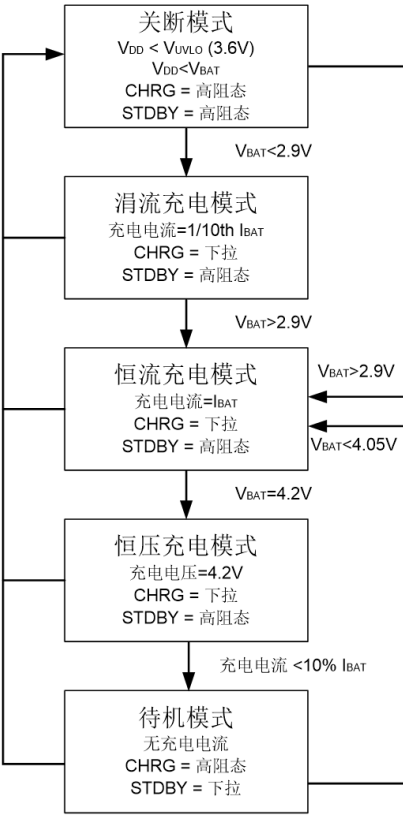
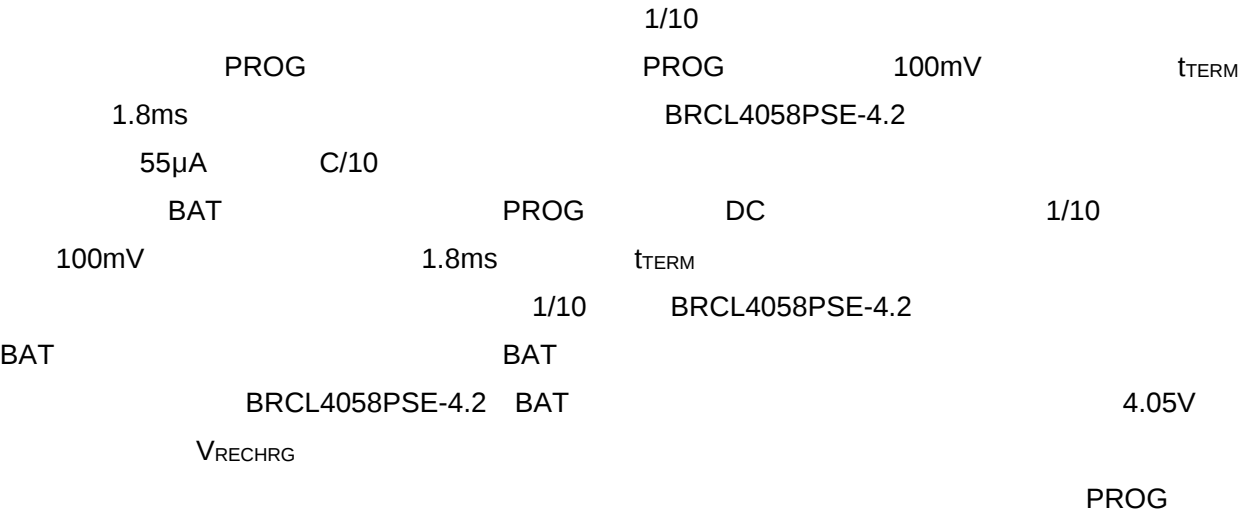
BRCL4058PSE-4.2

/ Function description



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

/ Function description



/ Function description

BRCL4058PSE-4.2
CHRG STDBY
CHRG
CHRG STDBY
TEMP BAT 10μF
LED LED 1-4s

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

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BRCL4058PSE-4.2
BRCL4058PSE-4.2

BRCL4058PSE-4.2
TEMP TEMP NTC
BRCL4058PSE-4.2 VLOW VHIGH
80%×Vcc
TEMP VTEMP<VLOW VTEMP>VHIGH
TEMP VTEMP VLOW VHIGH TEMP

/ Function description

R1 R2
 R1 R2
 TL~TH TL TH)
 NTC RTL TL RTH TH RTL RTH
 TL TEMP

$$V_{TEMPL} = \frac{R2 || RTL}{R1 + R2 || RTL} V_{IN}$$

TH TEMP

$$V_{TEMPH} = \frac{R2 || RTH}{R1 + R2 || RTH} V_{IN}$$

$$V_{TEMPH} = V_{HIGH} = k2 \times V_{CC} (k2 = 0.8)$$

$$V_{TEMPL} = V_{LOW} = k1 \times V_{CC} (k1 = 0.4)$$

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

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

PTC

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

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

Vcc

R1 R2 RTH RTL

RTH RTL

R2

R1

R1

UVLO

VCC

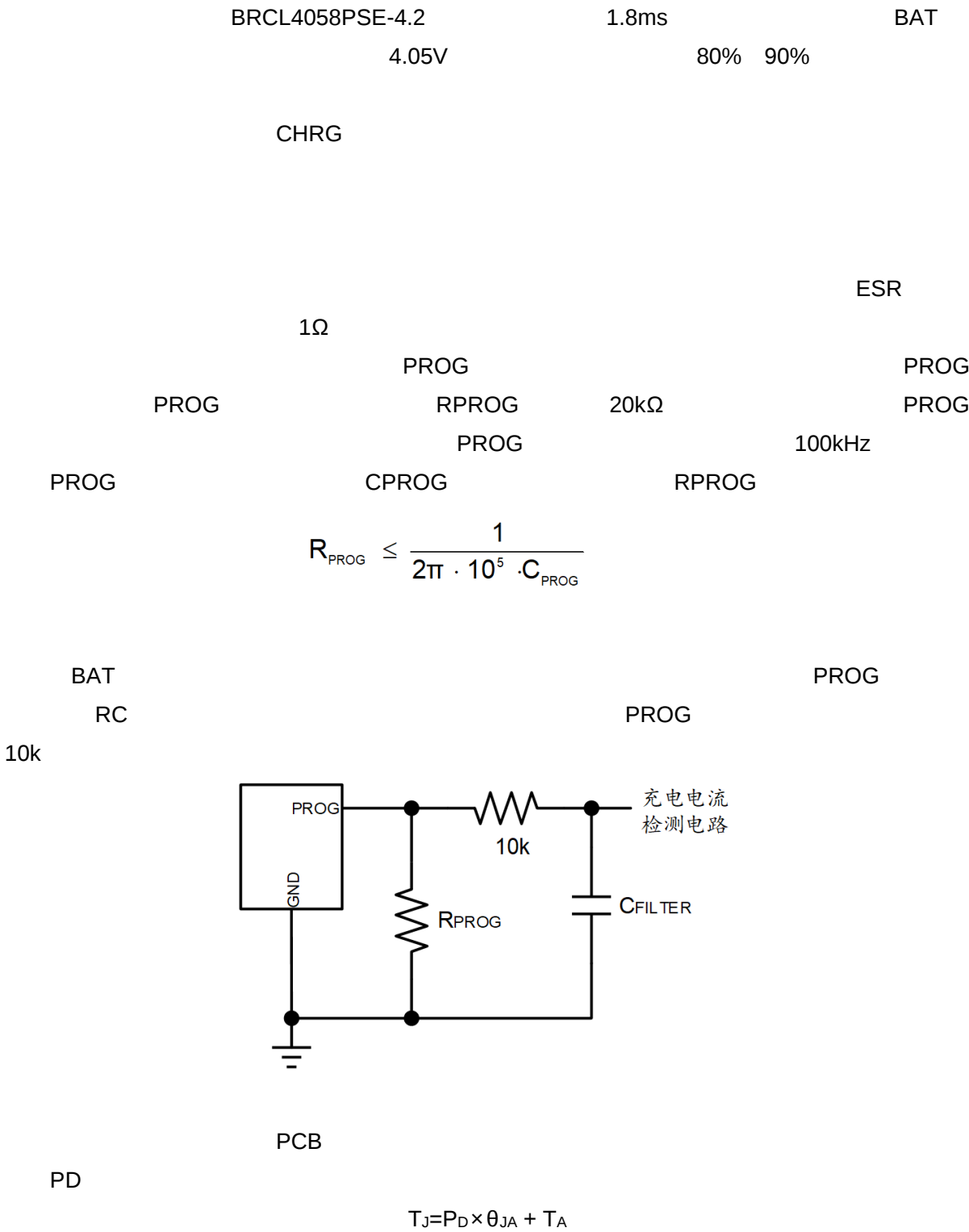
UVLO

UVLO

VCC

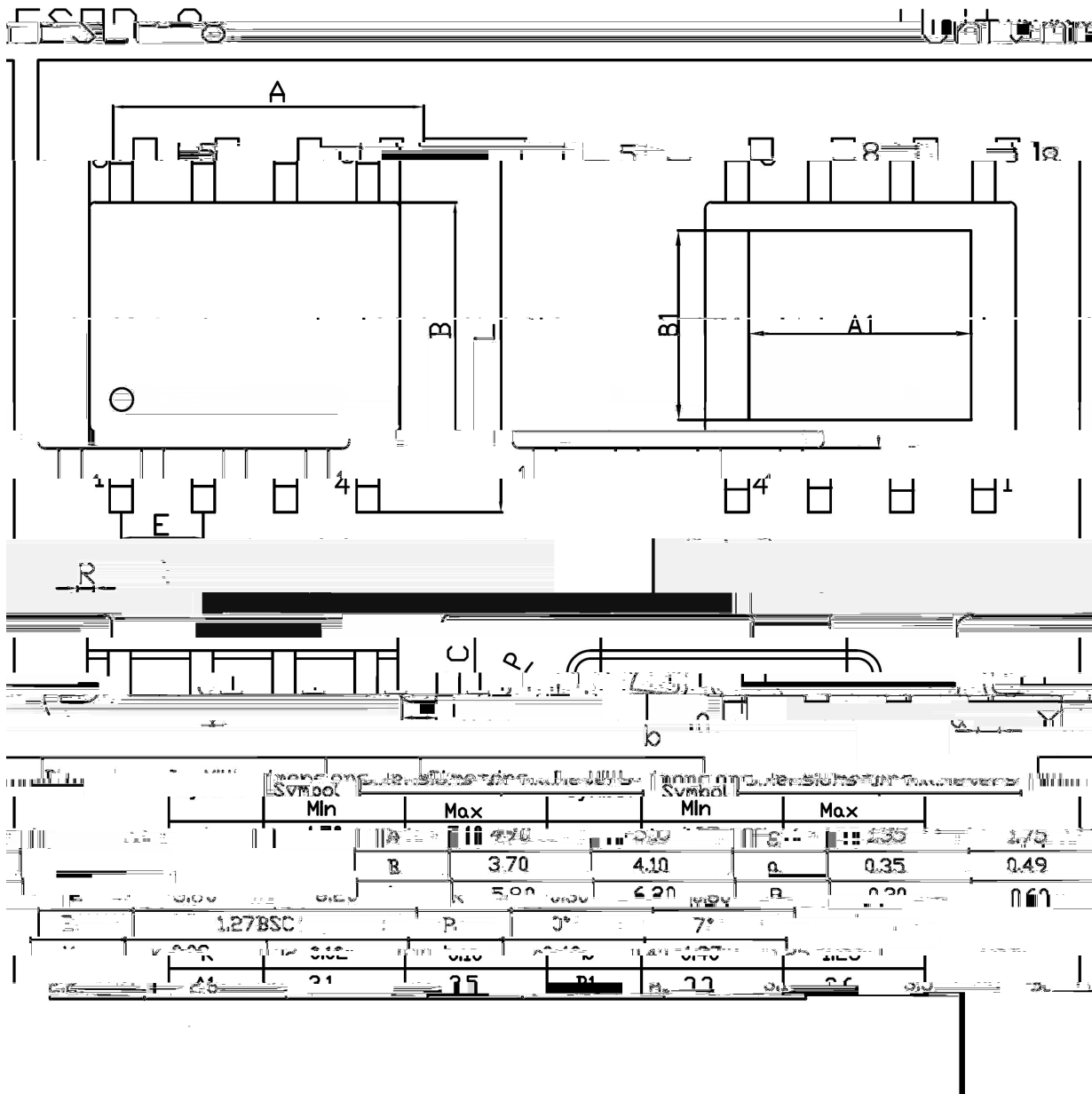
100mV

/ Function description

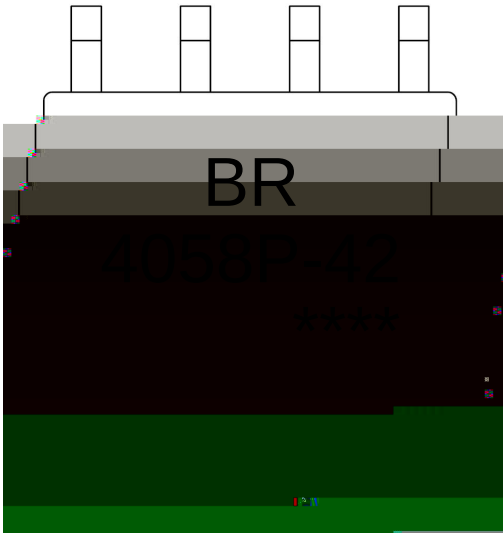


IC	PD	$V_{IN}-V_{BAT}$	I_{CHG}	:
		$P_D= V_{IN}-V_{BAT} \cdot I_{CHG}$		
	3.6V			
	4.0V		5%~10%	PD

/ Package Dimensions

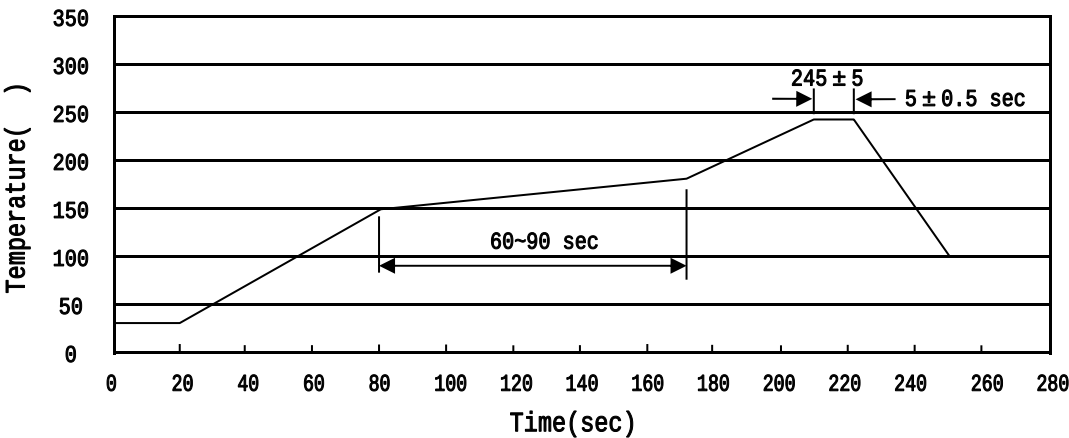


/ Marking Instructions



BR	
4058P	
42	4.2v

() / Whp shrdwxrh Prriioh i rr IU Uhi orw 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.

/ 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)		
SOP/ESOP-8	4,000	2	8,000	6	48,000	13 ×12	360×360×50	380×335×366

/ Notices

All information provided in this document is subject to legal disclaimers.