

/ Descriptions

BRCL4058HME-XX	/	
BRCL4058HME-XX		MOSFET
	4.0/4.2/4.35V	ISET
	1/10	BRCL4058HME-XX
BRCL4058HME-XX		1
μA		

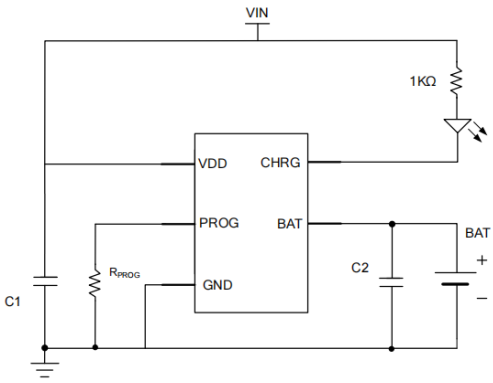
/ Features

- ◆ 28V
- ◆ 15V
- ◆ 6.5V
- ◆
- ◆ 800mA
- ◆ 1% 4.0/4.2/4.35V
- ◆
- ◆ MOSFET
- ◆
- ◆ SOT23-5
- ◆ RoHS

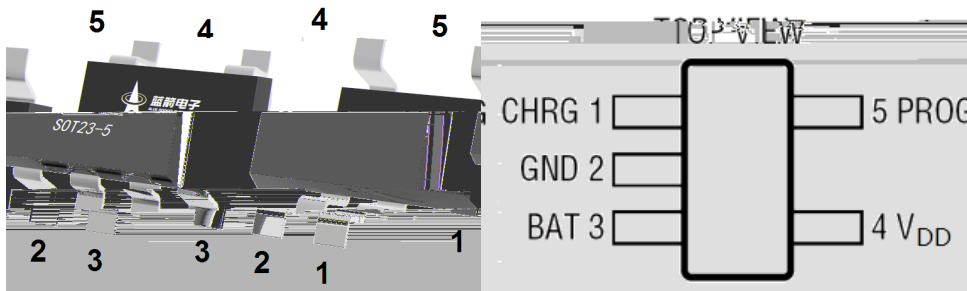
/ Applications

- ◆
- ◆
- ◆
- ◆

/ Application Circuit



/ Pinning



PIN Num.	Symbol	Function
1	CHRG	
2	GND	
3	BAT	
4	V _{DD}	
5	PROG	

/ Part Name

BRCL4058HME-XX	
XX	4.0 4.0V

/ Absolute Maximum Ratings(Ta=25)

PARAMETER	SYMBOL	RATINGS	UNITS
Input Supply Voltage	V _{IN}	-0.3~28	V
BAT Pin Voltage	V _{BAT}	-0.3~15	
Other Pin Voltage	V _{Other}	-0.3~6.5	
Operating Ambient Temperature Range	T _A	-40~+85	°C
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55~+150	°C
Lead Temperature (Soldering, 10s)	T _{solder}	260	°C
ESD	HBM	2000	V
	MM	200	V
Continuous Output Current	I _o	800	mA

BRCL4058HME-XX

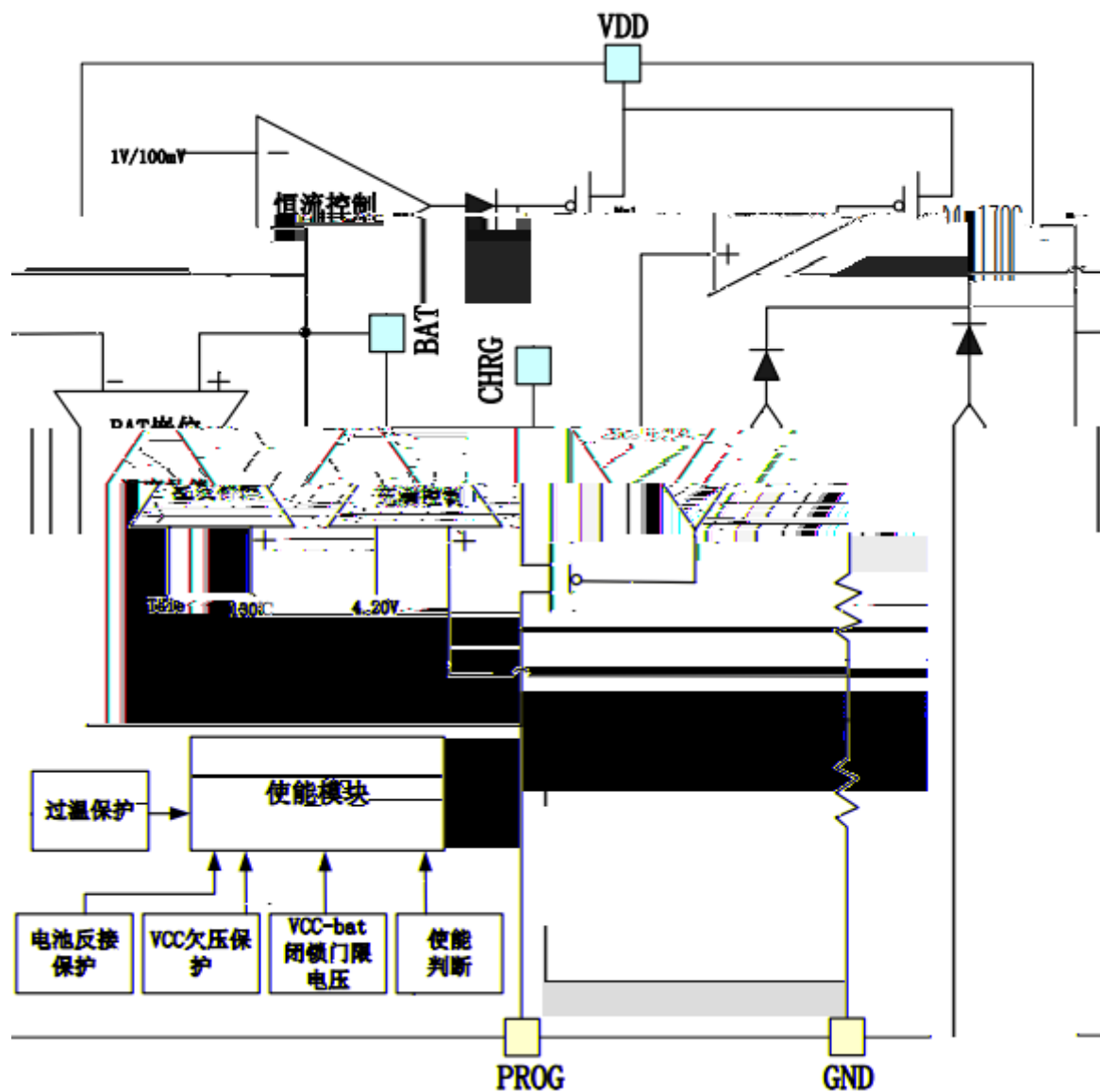
Rev.C Jan.-2024



DATA SHEET

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Input Supply Voltage	V_{IN}		4.5	5.0	6.0	V
Input Power Supply Current Input Over-Voltage	I_{IN}	$V_{BAT} = V_{FLOAT} + 0.1V$		90		μA

/ Principle block diagram



/ Function description



3.3V 6.5V IC BAT 2.6V

BRCL4058HME-XX 1/10 ISET

BAT 2.6V CC

ISET BAT BRCL4058HME-XX

CV CV 1/10



1/10

ISET ISET 100mV tTERM

1ms



ISET

(V_{ISET}=1V)

$$I_{BAT} = \frac{1700 \times V_{ISET}}{R_{ISET}}$$


BRCL4058HME-XX BAT

V_{FLOAT}-150mV 80% 90%



UVLO

UVLO VIN VIN

UVLO UVLO VIN

110mV



BRCL4058HME-XX

BAT GND 300mV BAT GND

80mV

/ Function description

◆ CHRG FULL

BRCL4058HME-XX

CHRG

CHRG

CHRG

	CHRG
VDD	

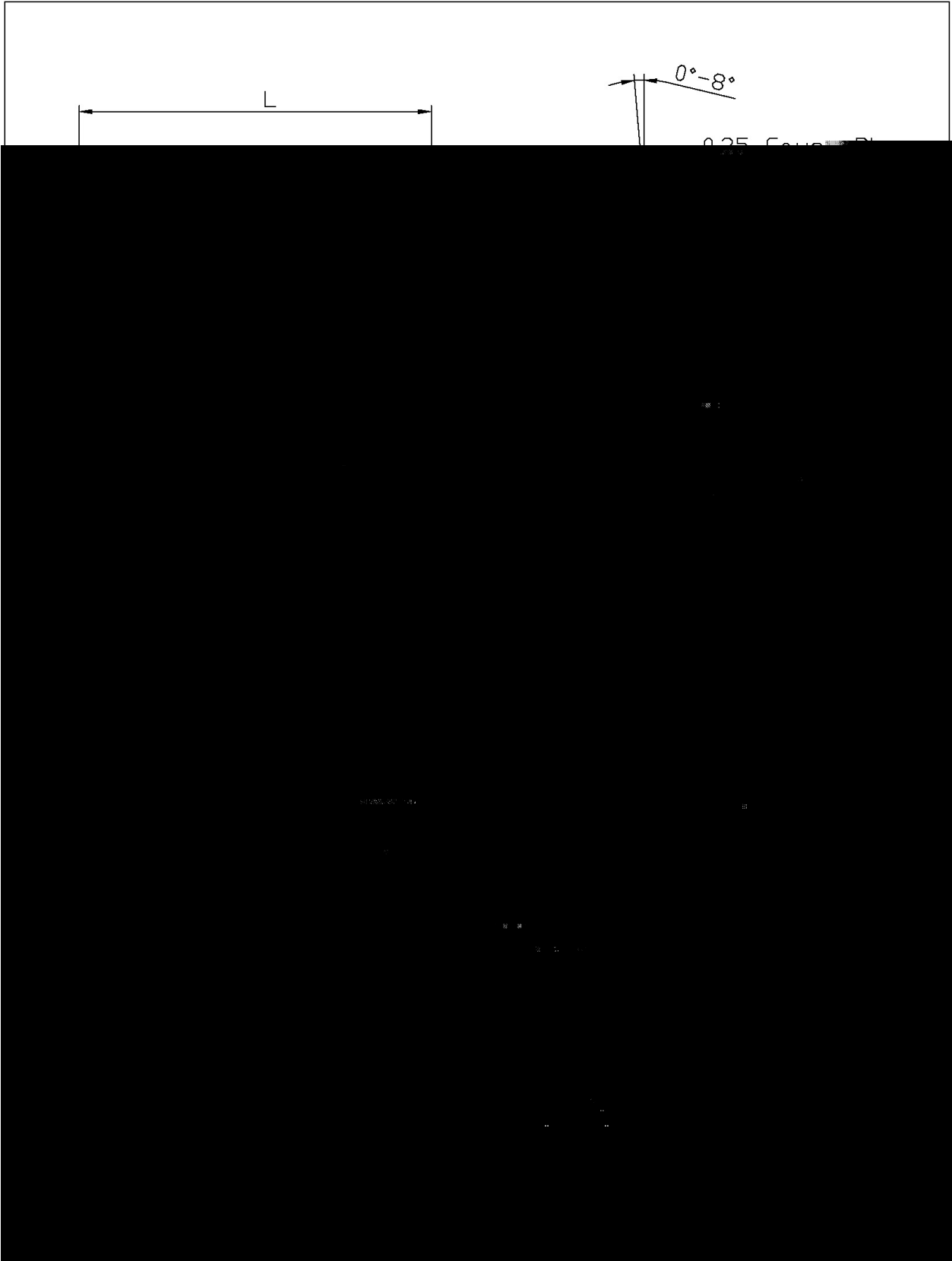
◆

125

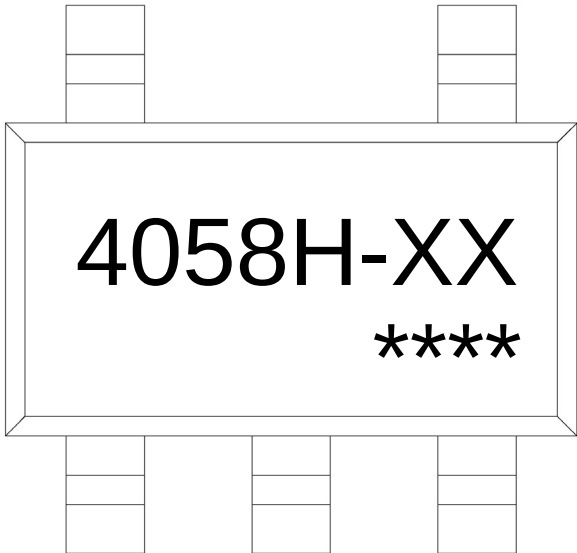
BRCL4058HME-XX

BRCL4058HME-XX

/ Package Dimensions



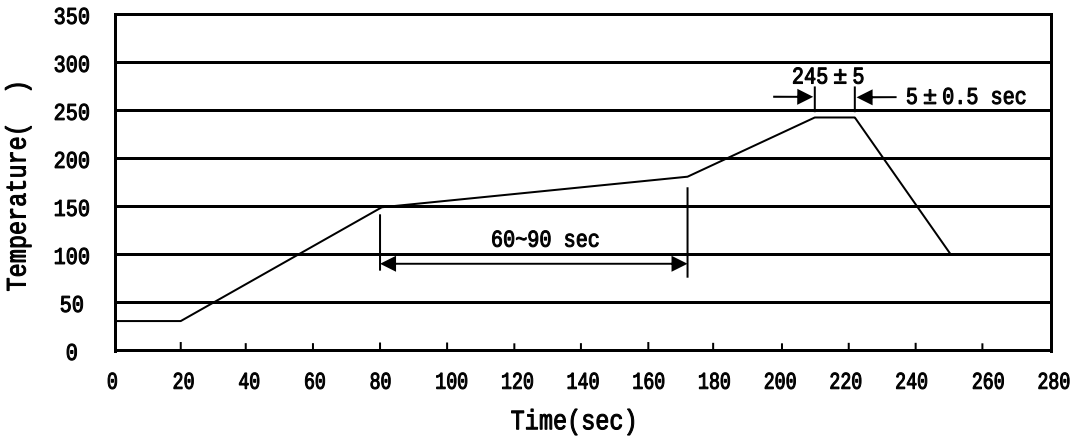
/ Marking Instructions



4058H
XX

BRCL4058HME-4.0	4058H-40/****
BRCL4058HME-4.2	4058H-42/****
BRCL4058HME-4.35	4058H-435/****

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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)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOT23-5/6	3,000	10	30,000	4	120,000	7 ×8	210×205×205	445×435×230

/ Notices