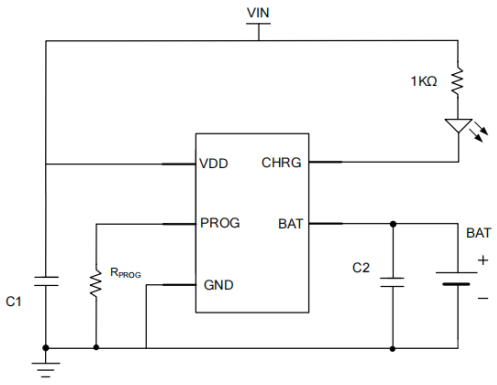
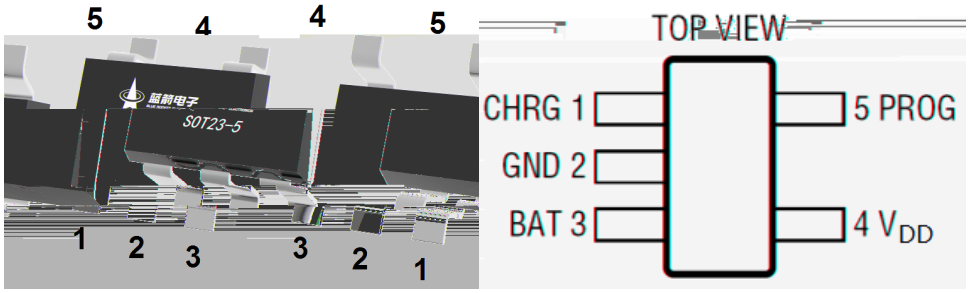
BRCL4058HME-XX /
BRCL4058HME-XX MOSFET

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

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

-
-
-
-



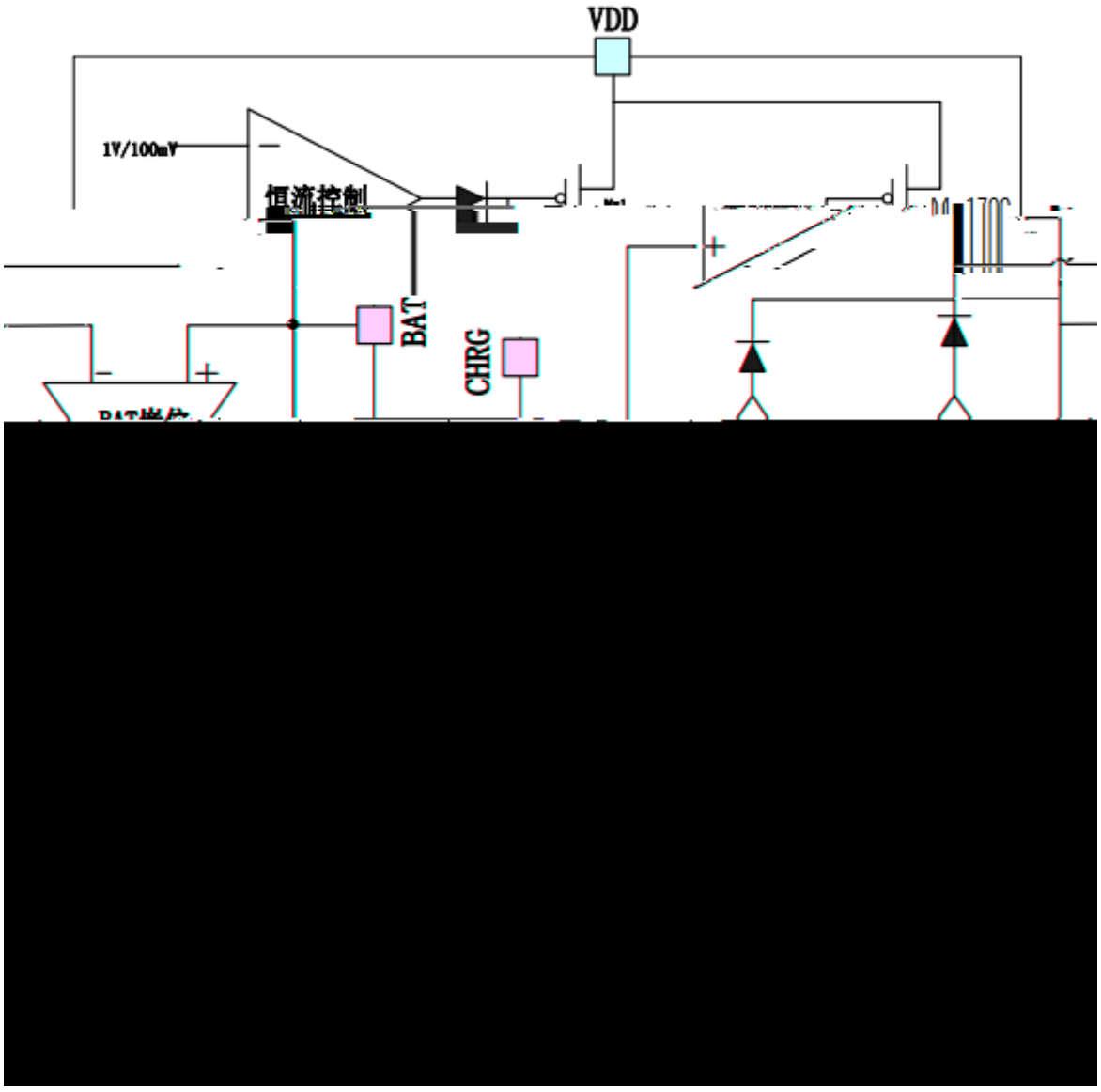


1	CHRG	
2	GND	
3	BAT	
4	V_{DD}	
5	PROG	

BRCL4058HME-XX	
XX	4.0 4.0V

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

Input Supply Voltage	V_{IN}		4.5	5.0	6.0	V
Input Power Supply Current	I_{IN}	V_{BAT}= V_{FLOAT}+0.1V		90		A
Input Over-Voltage	V_{ovp}	V_{IN} from Low to High		6.5		V
Input Over-Voltage Protection Voltage Hysteresis	V_{OVP}			300		mV
V_{IN} Under Voltage Lockout Threshold	V_{UVL}	V_{IN} from High to Low V_{BAT}=2.7V		3.3		V
V_{IN} Under voltage Lockout Hysteresis	V_{UVL}			100		mV
Regulated Output (Float) Voltage	V_{FLOAT}	I_{BAT}=40mA	3.96	4.0	4.04	V
			4.158	4.2	4.242	
			4.307	4.35	4.394	
Recharge Battery Threshold	V_{RECHRG}	V_{FLOAT}-V_{RECHRG}		150		mV
BAT Pin Current	I_{BAT}	R_{ISET}=17k, Constant Current Mode		100		mA
		R_{ISET}=3.4k, Constant Current Mode		500		mA
		R_{ISET}=2.1k, Constant Current Mode		800		mA
		V_{BAT}= V_{FLOAT}, Standby Mode		2.5		A
		Shutdown Mode (V_{BAT}=V_{FLOAT},RPROG not Connected / V_{IN}-0)		0.1		A
		Battery Reverse Connection (V_{BAT}=-V_{FLOAT}, V_{IN}-0)		2		mA
Trickle Charge Threshold	V_{TRIKL}	V_{BAT} from Low to High		2.6		V
Trickle Charge Hysteresis	V_{TRIKL}			200		mV
Trickle Charge Current	I_{TRIKL}			10		%I_{BAT}
Termination Current Threshold	I_{EOC}			10		%I_{BAT}
CHRG/FULL Pin Pull-Down Current	I_{CHRG}	V_{CHRG}=5V			5	A
CHRG/FULL Pin Output Low Voltage	V_{CHRG}	I_{CHRG}=5mA			0.1	V
ISET Pin Voltage	V_{ISET}	R_{ISET}=10k, Constant Current Mode		1		V
VIN-VBAT Locking Threshold Voltage	V_{ASD}	V_{BAT}=3.6V V_{IN}:3.5V→4V		110		mV
		V_{BAT}=3.6V V_{IN}:4V→3.5V		60		mV
Junction Temperature in Limited Temperature Mode	T_{LIM}			125		


VDD
1V/100mV
恒流控制
BAT
CHRG

◆

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 t_{TERM}
1ms

◆

ISET
(VISET=1V)

$$IBAT = \frac{1700\ xVISET}{RISET}$$

◆

BRCL4058HME-XX BAT
V_{FLOAT}-150mV 80% 90%

◆

VIN
UVLO UVLO VIN
110mV

◆

BRCL4058HME-XX

BAT GND 300mV BAT GND
80mV

◆

BRCL4058HME-XX CHRG

CHRG CHRG

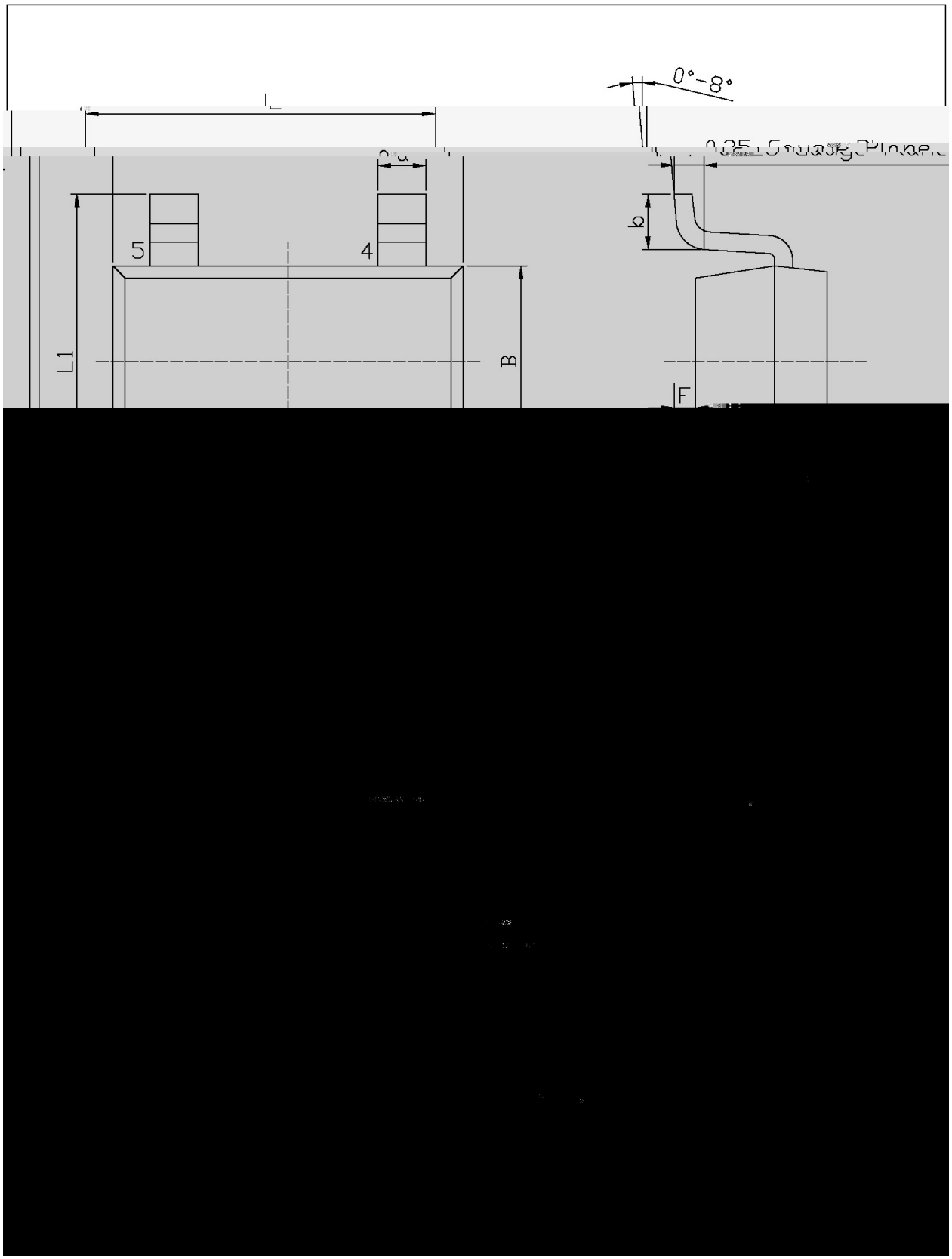
	CHRG
VDD	

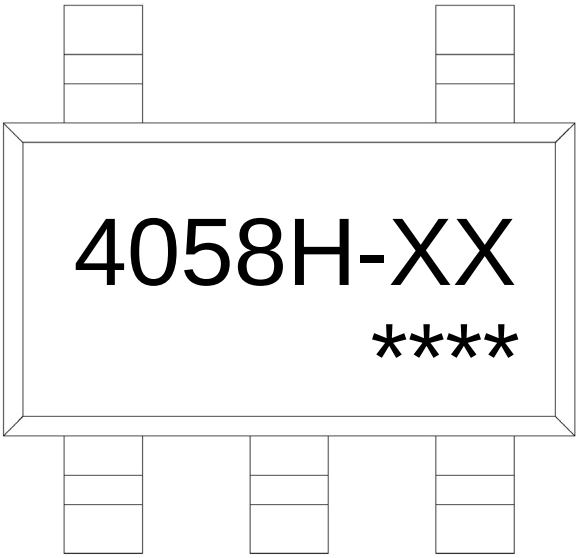
◆

125

BRCL4058HME-XX

BRCL4058HME-XX


0°-8°
L
5
4
L1
B
F



4058H

XX

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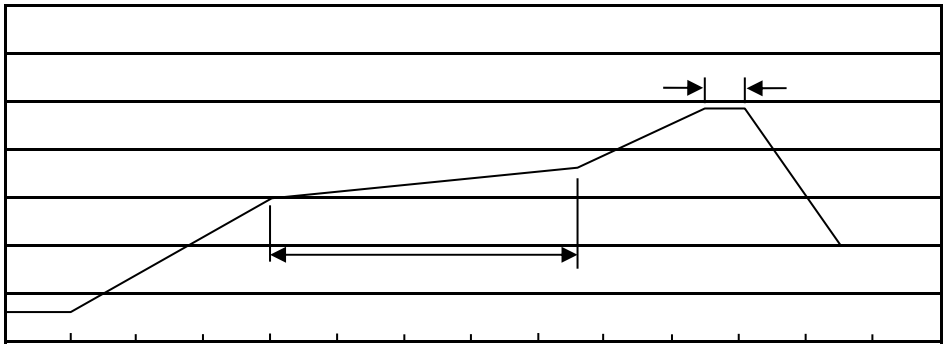
BRCL4058HME-4.0	4058H-40/****
BRCL4058HME-4.2	4058H-42/****
BRCL4058HME-4.35	4058H-435/****

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.

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ REEL

Package Type	Units					Dimension		(unit mm³)
	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