/ Descriptions

BRCL4058HME-XX

BRCL4058HME-XX MOSFET

4.0/4.2/4.35V ISET

BRCL4058HME-XX 1/10

BRCL4058HME-XX 1 μA

/ Features

28V

15V

6.5V

800mA

1% 4.0/4.2/4.35V

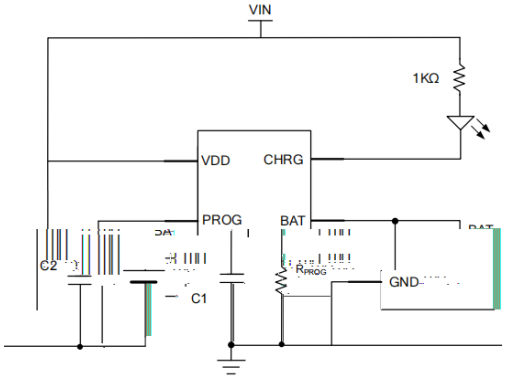
MOSFET

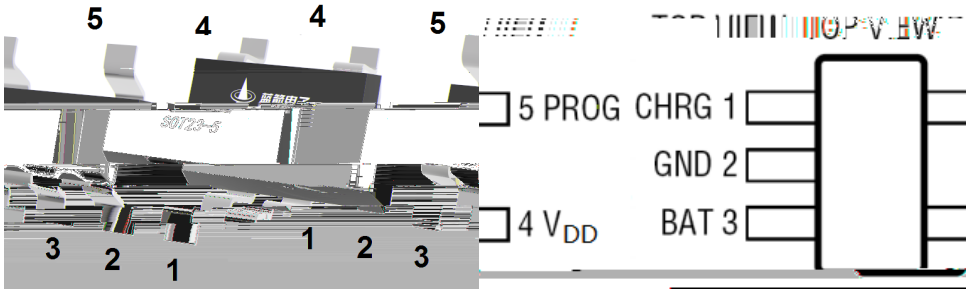
SOT23-5

RoHS

/ Applications

/ Application Circuit





PIN Num.	Symbol	Function
1	CHRG	ڑ ﷺ ډ ↑ ~ ۱
2	GND	ڭ ᗡ
3	BAT	ډ ډ ڑ ۇ
4	V_{DD}	ډ ڑ ۇ ف ېگ
5	SUR J	ډ ډ ذ ۱

/ Part Name

BRCL4058HME-XX	
.	ك ۺ
XX	ڑ ډ 4.0 χ 4.0V ڑ ʊ ډ h % ۱ ۅ

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	

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS

BRCL4058HME-XX

Rev.C Jan.-2024

DATA SHEET

/ Function description

ڑ ↄ 3.3V ⇂ 6.5V ↄ IC ₅ ˜ ↾ BAT Ů ↄ 2.6V ↄ
ƀ ↀ ↄ ف ↿ ï BRCL4058HME-XXώ ∤ 1/10 ISET ∧ ↿ ↄ ↄ ↄ
ↄ ڑ ↄ ↄ BAT Ů ↄ i 2.6V i ↄ ڤ ε CC ζ
ISET ∧ ↿ ↄ ↄ q ώ ∧ ↄ BAT Ů ↄ غ ∧ ↄ BRCL4058HME-XXف
ε CV ζ ↄ ↄ ل ں CV ï ↄ ↄ ں ∧ ↿ ↄ 1/10 ↄ ↑
~

ↄ ↄ ڑ ∧ ↄ ں₆ ф 1/10 ↄ ע q ∧ ₿ أ ڀ ڀ ↾
ሐ ي ISET Ů ڤ Φ ˇ í ISET Ů ↄ ں₆ 100mV ï ڑ ∧ ص tTERM ε
˘ 1ms ζ ↄ q ∧ ₿

ISET

ↄ ↄ ڀ ↾ ف ISET Ů ﻝ ڑ ↄ گ ф ф ↄ گ ↄ ↄ ڀ ↾ ï
ɯ ↿ (VISET=1V)

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

ñ ↄ ע q ∧ ₿ BRCL4058HME-XX BAT Ů i ↄ ڤ Φ ف ∧ ˇ í ↄ ↄ ں₆
V_{FLOAT}-150mV ε ₇ ↄ ي 80%₆ 90% ζ ï ↄ ע پ ڤ ↄ q ∧
ε غ ζ ↄ ↑ ڻ ڤ Φ ↄ ע ﻝ ،

UVLO

ﻝ ڎ ↄ ڃ ث ↄ ڑ ↄ ڤ Φ ˇ í VIN ₆ ڎ ڃ ڈ ں i ↄ
UVLO ↄ ث ↄ UVLO ي ↿ ب VIN ₆ ↄ ↄ
⇂110mV ↄ j گ

BRCL4058HME-XX ሐ ؤ ↄ ↄ ث گ ₿ ţ پ ↾ ↄ ₇ ƀ
ↀ

BAT Ů ↄ GND ↄ 300mV ڎ ሐ ↄ ث ψ BAT Ů ↄ ₆ GND ↄ
80mV ↄ * % ↄ ע پ

CHRG FULL

EUF07388K P H0XX ث ↑ ~ ڑ ۱ FKUJ ↑ ↑

FKUJ q ↑ ↑ ă ~ ث FKUJ ﺣ ﮓ

↑	CHRG
* ↑	
↑	
ص ص ۱ ↑	
VGG ↑	ذ

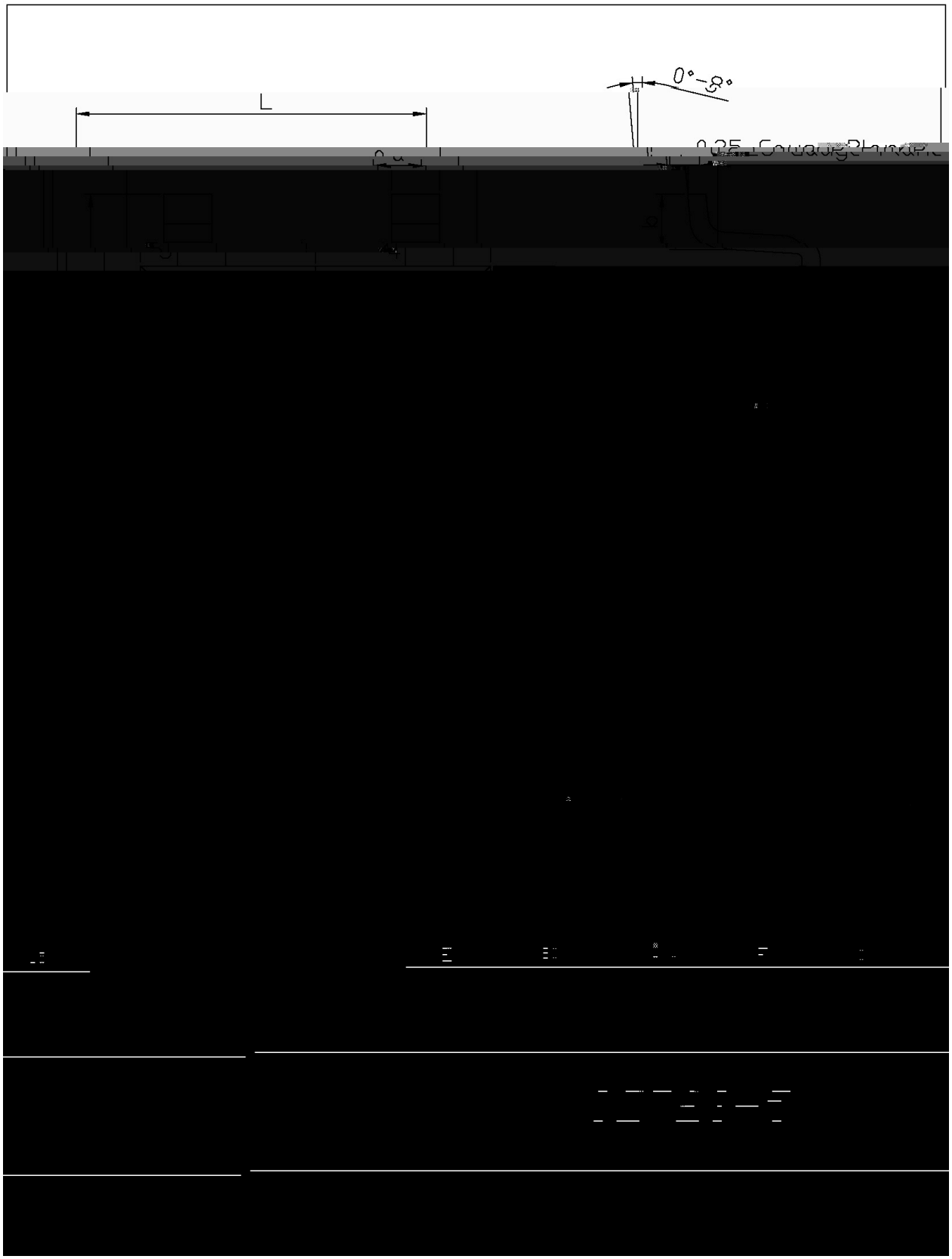
ﻁ ɑ ﺣ أ ﻑ 125 ﻣﻫ ة ﻉ ث ↑ ↑ أ ا ﺃ گ

BRCL4058HME-XXص p ŧ ώ ﺣ ﻝ ↑ ث ا ' ת ﺃ OBJ i ں ă

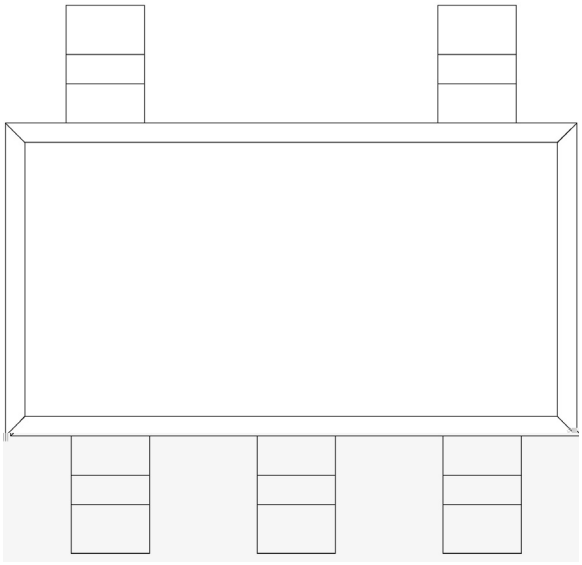
BRCL4058HME-XXOBJ l ڑ - ↑ ï ₅ ↑ OBJ ώ ï ⋮ Ɛ ε ă

j ζ ע ﻑ ↑ ↑ . ↑ ï ₅ ں ↑

/ Package Dimensions



/ Marking Instructions



ب χ

7388K χ .

XX χ ڑ ً ک ï ً ~

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BRCL4058HME-4.0	4058H*a2030	S

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)

ب χ

1 أ 150 180 ژ 60 90sec;

2 245±5 ژ ٨ 5±0.5sec;

3 ٩ ھ 2 10 /sec.

Note:

1.Preheating:150~180 , Time:60~90sec.

2.Peak Temp.:245±5 , Duration:5±0.5sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

` Ь / REEL

Package Type	Units	Dimension	(unit mm³