

BRCL4058MME-4.2 30V OVP 500mA

/

BRCL4058MME-4.2 P-MOSFET

4.2V

BRCL4058MME-4.2

0.1uA

BRCL4058MME-4.2

BRCL4058MME-4.2 USB

30V

6.8V OVP

30mA-500mA

/

1%

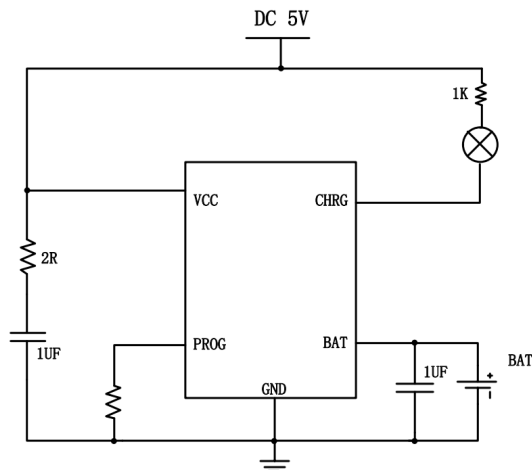
2.8V

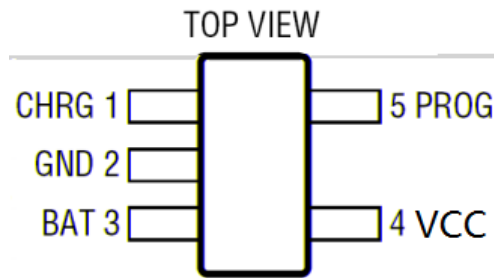
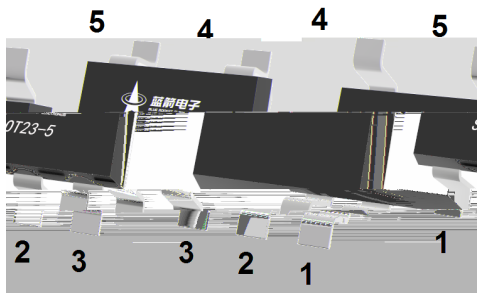
C/10

BAT

SOT23-5

RoHS





1	CHRG	
2	GND	
3	BAT	
4	VCC	
5		

°C

VCC/CHRG Pin Voltage	$V_{VCC/CHRG}$	-0.3~30	V
BAT Pin Voltage	V_{BAT}	-5~13	
PROG Pin Voltage	V_{PROG}	-0.3~6	
Operating Ambient Temperature Range	T_{OP}	-40~+85	°C
Storage Temperature	T_{stg}	-55~+150	°C
Lead Temperature (Soldering, 10s)	T_{solder}	260	°C
Junction-to-Ambient		240	/W
ESD	HBM	2000	V
	MM	200	V

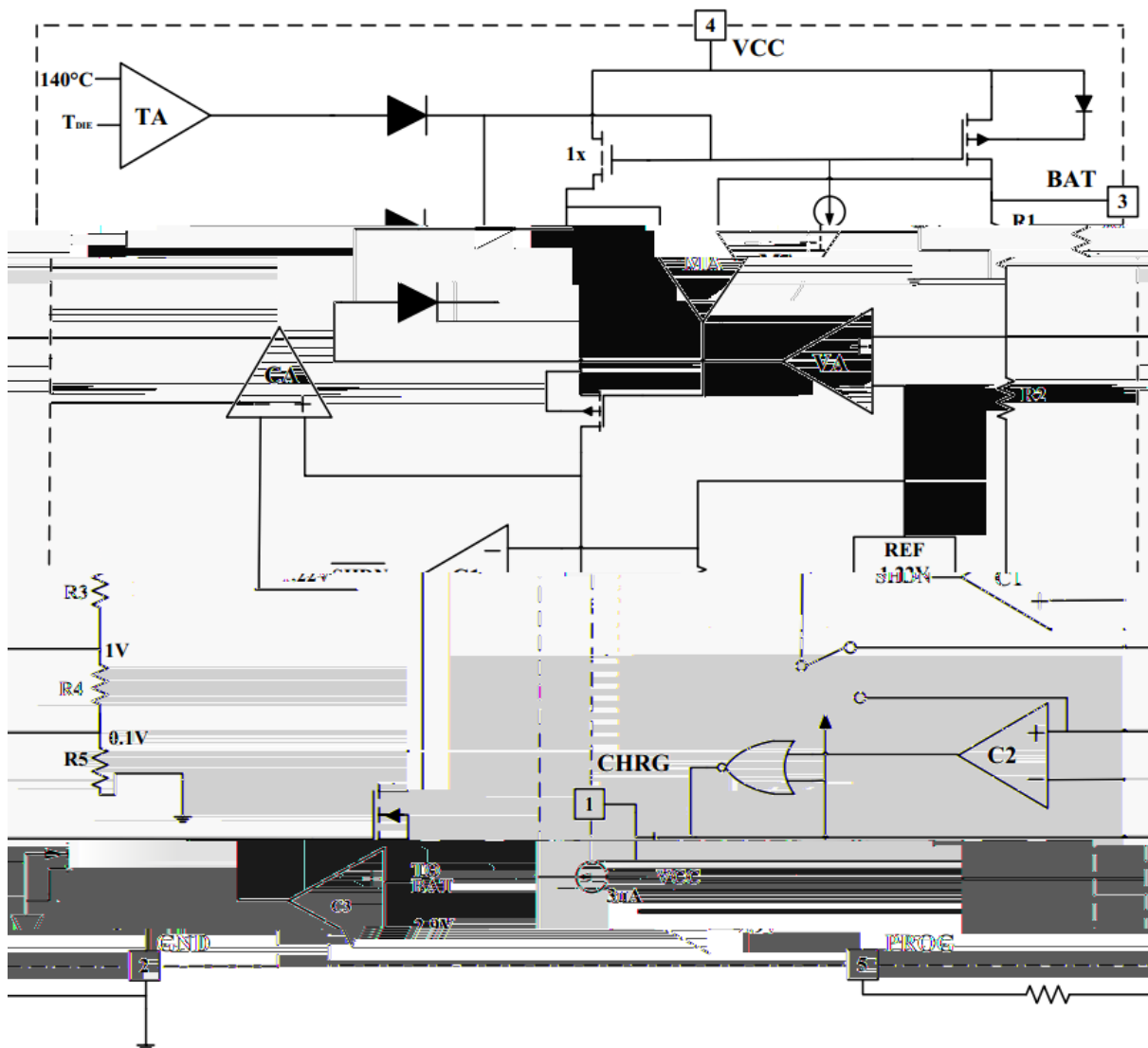
°C

Input Supply Voltage	V_{CC}		5.0	V
Maximum of Input Supply Voltage	V_{CC_MAX}		30	V
Input Over-Voltage Protection Voltage	V_{OVP}	V_{CC} from Low to High	6.8	V

°C

Input Power Supply OVP Hysteresis Voltage	V_{OVP_HYS}			500		mV
Input Power Supply Current	I_{CC}	Charging mode ($R_{PROG}=10K$)		300		μA
		Standby mode, charging terminated		100		μA
		Shutdown mode (R_{PROG} not connected, $V_{CC}<V_{BAT}$ or $V_{CC}<V_{UV}$)		60		μA
Regulated Output (Float) Voltage	V_{FLOAT}		4.158	4.200	4.242	V
BAT Pin Current (The Constant Current Mode Mode Test Condition is $V_{BAT}=4.0V$)	I_{BAT}	$R_{PROG}=10k$, Constant Current Mode		98		mA
		$R_{PROG}=1.8k$, Constant Current Mode		550		mA
		$V_{BAT}=V_{FLOAT}$, Standby Mode		-2	-6	μA
		Shutdown Mode (R_{PROG} not Connected)		± 1	± 2	μA
		Sleep Mode ($V_{CC}=0V$)		± 1	± 2	μA
Trickle Charge Current	I_{TRIKL}	$V_{BAT} > V_{TRIKL}$; $R_{PROG}=1.8K$		55		mA
Trickle Charge Threshold	V_{TRIKL}	$R_{PROG}=10K$ V_{BAT} from Low to High		2.85		V
Trickle Charge Hysteresis	V_{TR_HYS}	$R_{PROG}=1.8K$		350		mV
V_{CC} undervoltage lockout threshold	V_{UV}	V_{CC} from Low to High		3.8		V
V_{CC} undervoltage lockout hysteresis	V_{UVHYS}			280		mV
$V_{CC}-V_{BAT}$ lockout threshold voltage	V_{ASD}	V_{CC} from Low to High V_{CC} from High to Low		200 100		mV
C/10 Charging Termination Current	I_{TERM}	$R_{PROG}=10K$ $R_{PROG}=1.8K$		10 55		mA
R_{PROG} voltage at Constant Current Mode	V_{PROG}	$R_{PROG}=1.8K$, Constant Current Mode	0.9	1.0	1.1	V
CHRG pin outputs low voltage	V_{CHRG}	$I_{CHRG}=5mA$		0.6		V
Rechargeable Battery Voltage	V_{RECHRG}	$V_{FLOAT}-V_{RECHARGH}$		100		mV
Junction Temperature in Limited Temperature Mode	T_{LIM}			140		
Static Drain-Source On-Resistance	$R_{DS(on)}$			1100		m Ω
Soft start time	T_{SS}			20		μS

Recharge Comparator Filtering Time	$T_{RECHARG}$	V_{BAT} from High to Low	1		
Terminate the comparator filtering time	T_{TERM}	I_{BAT} drop to below $I_{CHARGE}/10$	2.5		
PROG pin pull-up current	I_{PROG}		0.3		μA



BRCL4058MME-4.2 /
 500mA BRCL4058MME-4.2 USB

BRCL4058MME-4.2 OVP VCC 6.8V OVP
 6.8V 6.3V

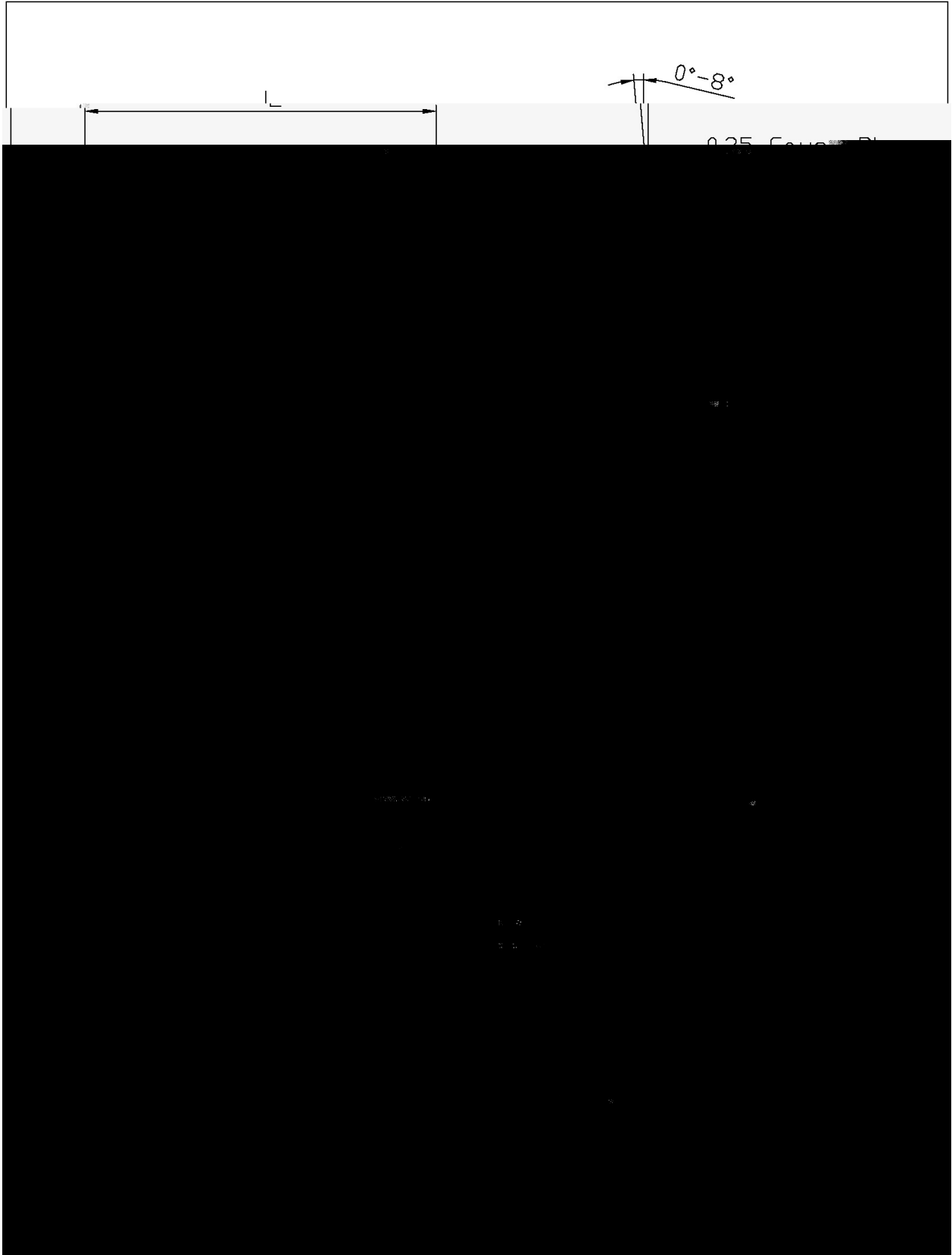
$I_{CH} = 1000/R_{PROG}$ I_{CH} R_{PROG}
 R_{PROG} 200mA
 $R_{PROG} = 1000/0.2 = 5K$

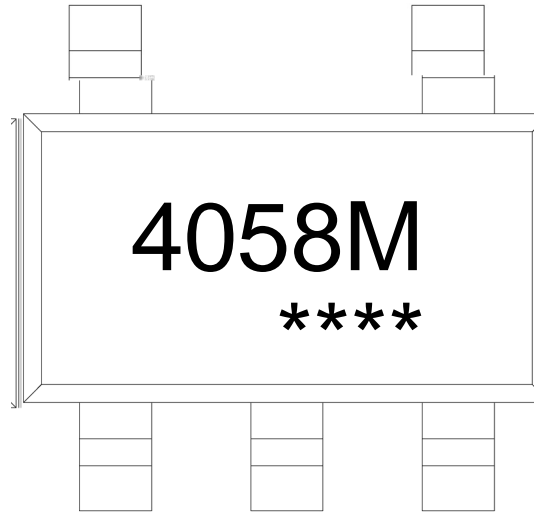
R_{PROG} 1%

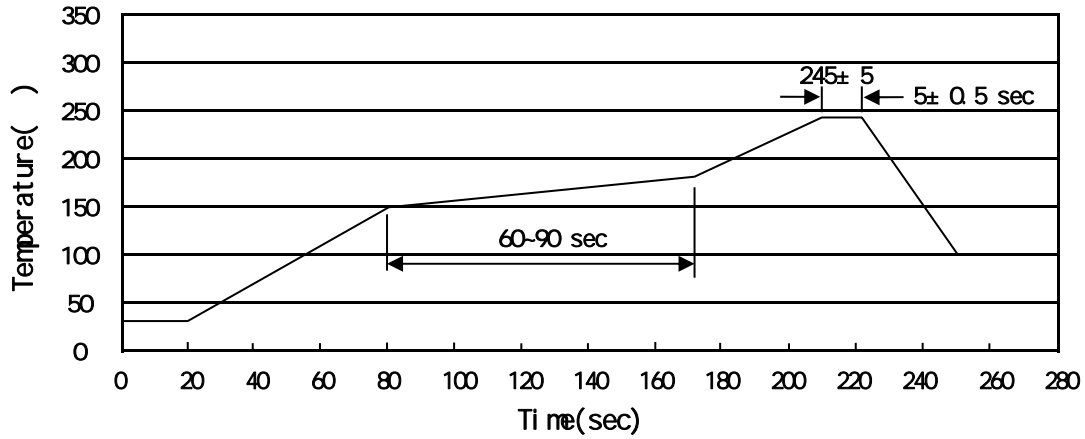
R_{PROG}

$R_{PROG}(K\Omega)$	$I_{CH}(mA)$
10	100
5	200
3.3	300
2	500

T_{TERM} 2.5ms
 PROG 1/10
 BAT C/10
 100mV PROG DC 100mV
 BAT 1/10
 BRCL4058MME-4.2
 BAT
 BRCL4058MME-4.2 BAT







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 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" x8	210x205x205	445x435x230