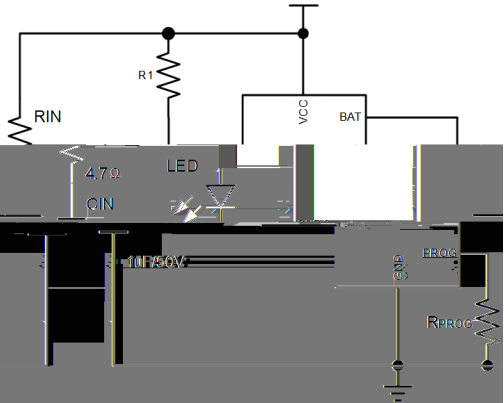
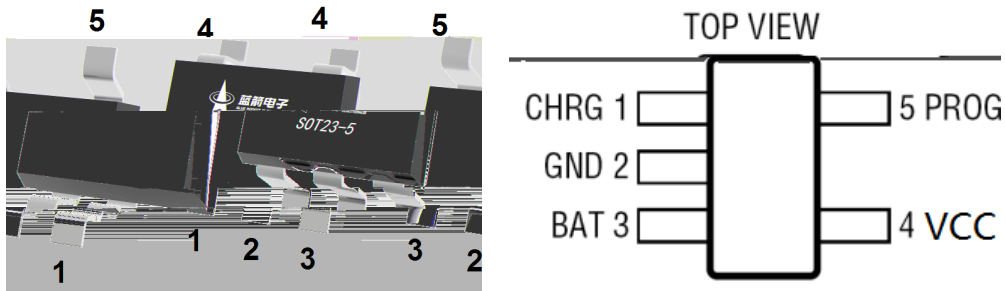


BRCL4079ME-4.2		/		BRCL4079ME-4.2		5V	USB
MOSFET		4.2V					
		1/10	BRCL4079ME-4.2				
BRCL4079ME-4.2		SOT23-5					
-40°C	+85°C						

- ◆ 36V 6.1V
- ◆ 600mA
- ◆ MOSFET
- ◆ /
- ◆ USB
- ◆ 4.2V 1%
- ◆ 2.5V
- ◆ C/10
- ◆ 55μA
- ◆ SOT23-5

- ◆ PDA MP3
- ◆
- ◆
- ◆

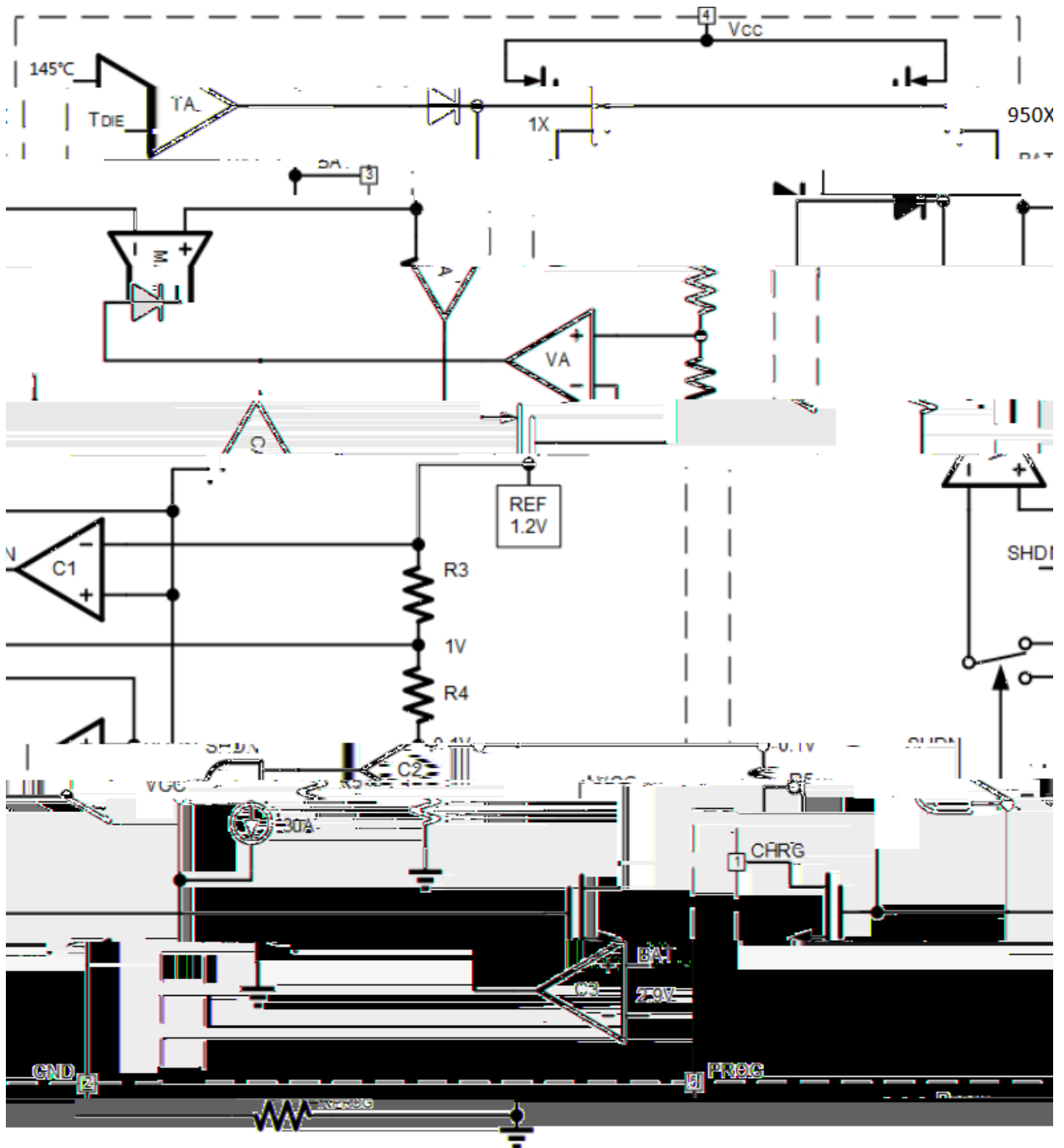




1	CHRG	
2	GND	
3	BAT	
4	VCC	
5	PROG	

Input Pin Voltage	V_{VCC}	-0.3~36	V
BAT Pin Voltage	V_{BAT}	-4.2~18	
Other Pin Voltage	V_{PROG}	-0.3~5.5	
CHRG Pin Voltage	V_{CHRG}	-0.3~13	
Storage Temperature	T_{stg}	-65~+150	
Junction Temperature	T_J	150	
Operating Ambient Temperature Range	T_{OP}	-40~+85	
Lead Temperature (Soldering, 10s)	T_{solder}	260	
Power onsumption	P_D	0.3	W
Junction-to-Ambient	$R_{\theta JA}$	250	/W
ESD	HBM	2000	V
	CDM	1000	V

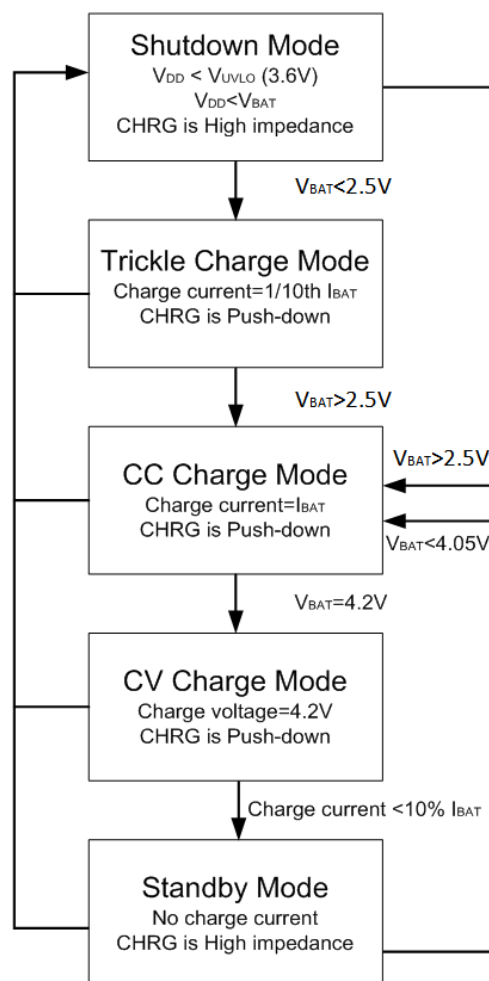
Input Voltage Range	V _{CC}		4.5	5	36	V
Quiescent Supply Current	I _Q	Charge Mode R _{PROG} =2.0k		240	360	μA
		Standby Mode (Charge Terminated)		220	300	μA
		Shutdown Mode (R _{PROG} Not Connected, V _{CC} < V _{BAT} , or V _{CC} < V _{UV})		220	300	μA
		OVP state		120	250	μA
Regulated Output (Float)Voltage	V _{FLOAT}	0 ≤ T _A ≤ 85, R _{PROG} = 2.0k	4.158	4.200	4.242	V
BAT Pin Current	I _{BAT}	R _{PROG} = 2.0k, Current Mode	427.5	475	522.5	mA
		Standby Mode, V _{BAT} = 4.2V	0	-2.5	-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} = 2.0K	35	47.5	60	mA
Trickle Charge Threshold Voltage	V _{TRIKL}	R _{PROG} = 2.0k, V _{BAT} Rising	2.3	2.5	2.7	V
Trickle Charge Hysteresis Voltage	V _{TRHYS}	R _{PROG} = 2.0k	120	160	200	mV
V _{CC} Undervoltage Lockout Threshold	V _{UV}	From V _{CC} Low to High	3.5	3.7	3.9	V
V _{CC} Undervoltage Lockout Hysteresis	V _{UVHYS}	From V _{CC} High to Low	100	200	300	mV
V _{CC} -V _{BAT} Lockout Threshold Voltage	V _{ASD}	V _{CC} from Low to High	100	125	150	mV
		V _{CC} from High to Low	30	65	100	mV
C/10 Termination Current Threshold	I _{TERM}	R _{PROG} = 2.0k	35	47.5	60	mA
PROG Pin Voltage	V _{PROG}	R _{PROG} = 2.0k, Current Mode	0.9	1.0	1.1	V
CHRG Pin Output Low Voltage	V _{CHRG}	I _{CHRG} = 5mA		0.3	0.6	V
Recharge Battery Threshold Voltage	ΔV _{RECHRG}	V _{FLOAT} - V _{RECHRG}	100	150	200	mV
Junction Temperature in Constant Temperature Mode	T _{LIM}			145		
Soft-Start Time	t _{SS}	I _{BAT} = 0 to I _{BAT} = 950V/R _{PROG}		20		μs
Recharge Comparator Filter Time	t _{RECHARGE}	V _{BAT} High to Low	0.8	1.8	4.0	ms
Termination Comparator Filter Time	t _{TERM}	I _{BAT} Falling Below I _{CHG} /10	0.8	1.8	4.0	ms
PROG Pin Pull-Up Current	I _{PROG}			1.0		μA



◆	BRCL4079ME-4.2	/		PCB
	600mA		±1% BRCL4079ME-4.2	P
	MOSFET			
	BRCL4079ME-4.2	USB		
◆	VCC	UVLO	1%	PROG
		BAT	2.5V	
	BRCL4079ME-4.2	1/10		
	BAT	2.5V		BAT
		4.2V	BRCL4079ME-4.2	
	1/10			
◆		PROG		950
			PROG	
		$R_{PROG}=950/I_{CHG}$	$I_{CHG}=950/R_{PROG}$	
	PROG	BAT		
		$I_{BAT}=(V_{PROG}\times 950)/R_{PROG}$		



			1/10		
PROG	PROG	100mV	t _{TERM}		
BRCL4079ME-4.2			55μA		
C/10					
BAT	PROG			1/10	
100mV	1.8ms	t _{TERM}			
	1/10	BRCL4079ME-4.2			BAT
	BAT				
BRCL4079ME-4.2		BAT		4.05V	
V _{RECHRG}					
	PROG				





BRCL4079ME-4.2

CHRG

CHRG

CHRG

BRCL4079ME-4.2

CHRG

BAT	10μF	LED	LED 1-4
		LED	
UVLO			
BAT	10μF	LED	T=1-4s



145°C

BRCL4079ME-4.2

BRCL4079ME-4.2



VCC

UVLO

200mV

30mV

UVLO

VCC

MOSFET

100mV

UVLO

VCC



BRCL4079ME-4.2

1.8ms

tRECHARGE

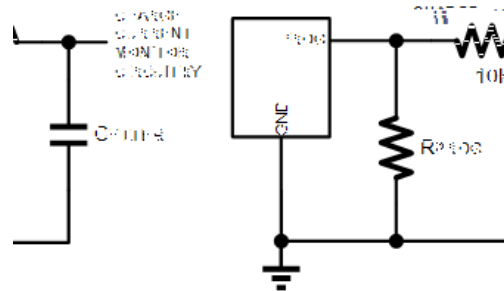
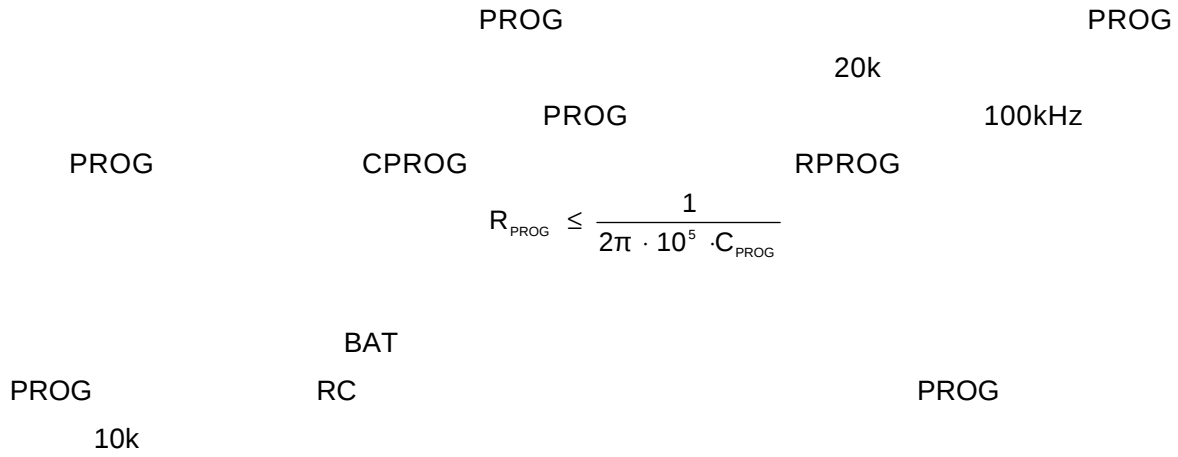
BAT

4.05V

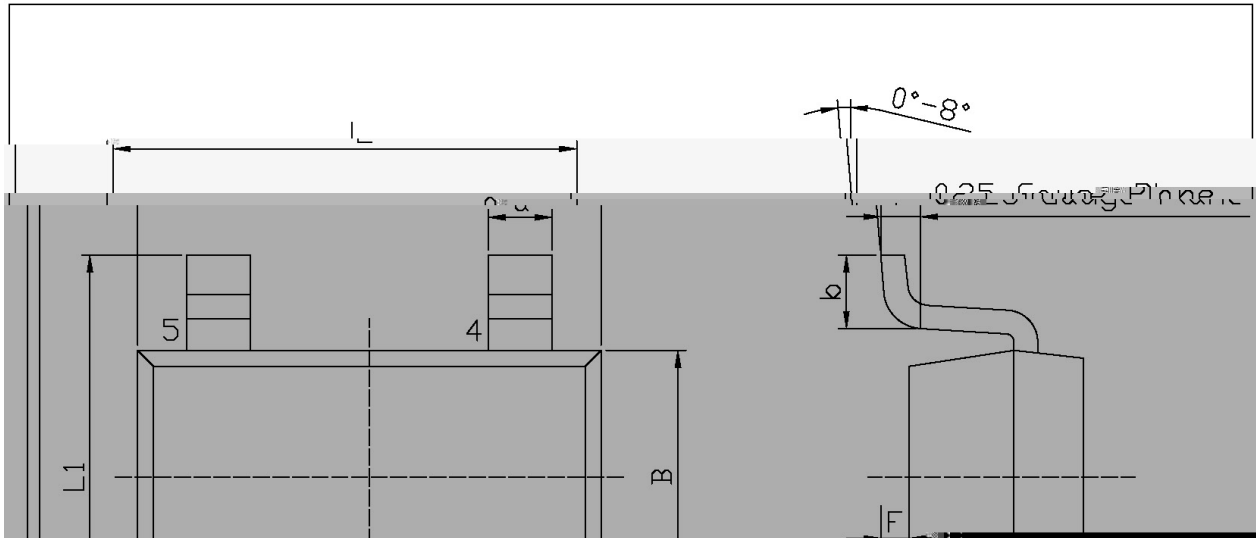
80%

90%

CHRG



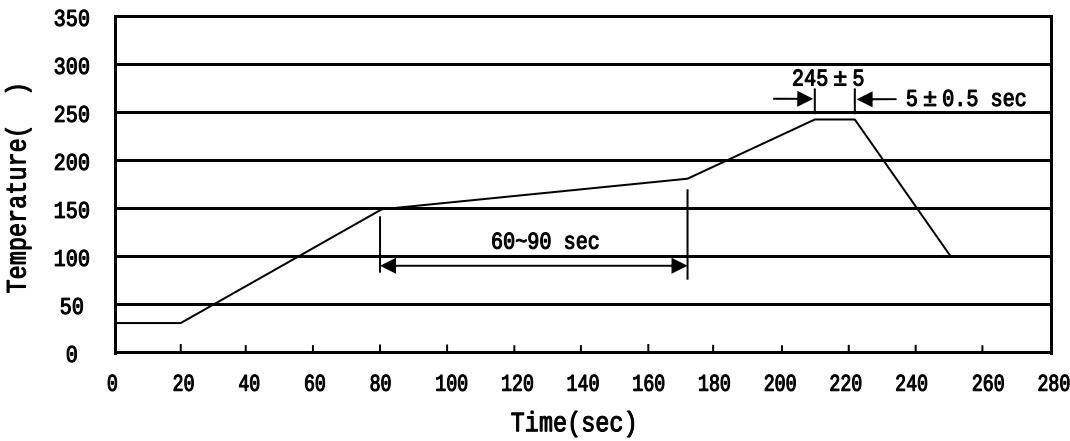
$$T_J = P_D \times R_{JA} + T_A$$





4079-42

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 mm ³)		
SOT23-5/6	3,000	10	30,000	4	120,000	7 ×8	210×205×205	445×435×230

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