

/ Descriptions

BRCL4079ZR-4.2							
BRCL4079ZR-4.2	/						
BRCL4079ZR-4.2				USB			
BRCL4079ZR-4.2	PMOSFET						
	4.2V	PROG			1.0A		
	BRCL4079ZR-4.2					2μA	
BRCL4079ZR-4.2							
BRCL4079ZR-4.2	DFN	6				PCB	
BRCL4079ZR-4.2	-40°C to +85°C						

/ Features

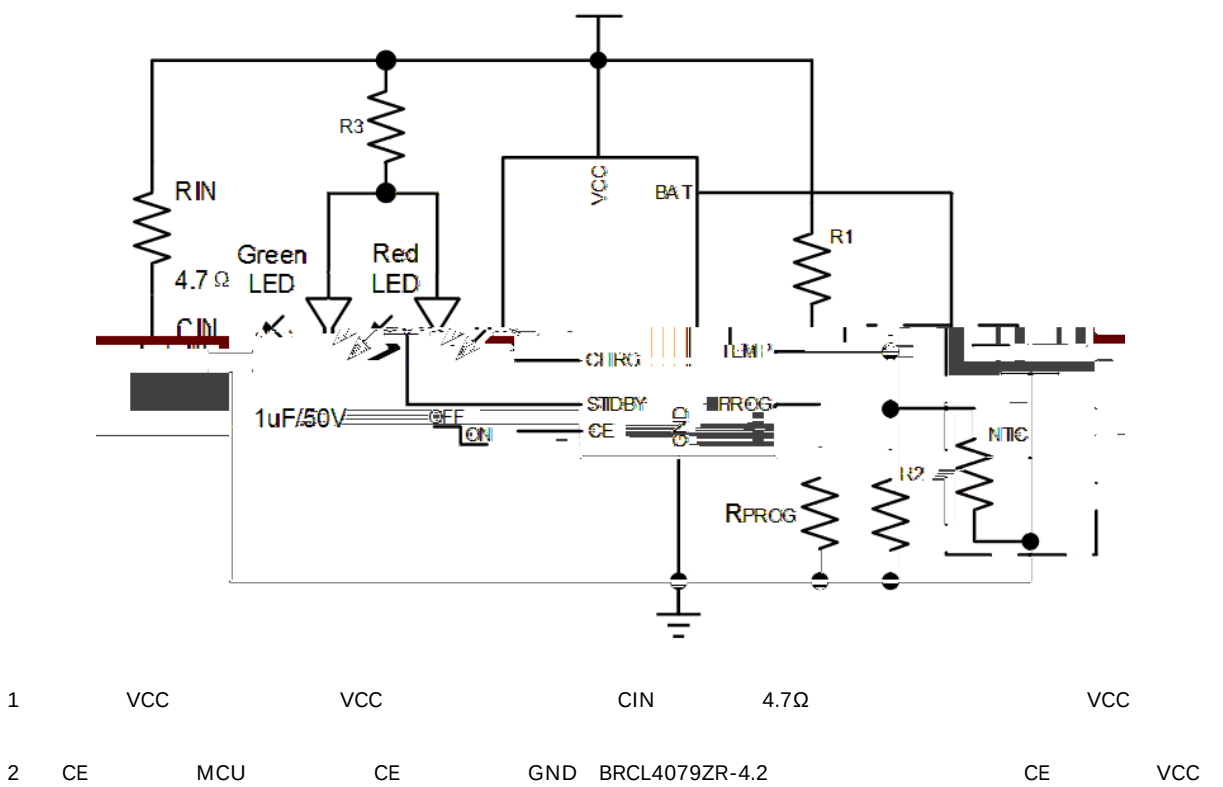
36V	6.1V
1%	4.2V
BAT-VDD	
<2μA	
	55μA
0V	
1.0A	
/	/

RoHS

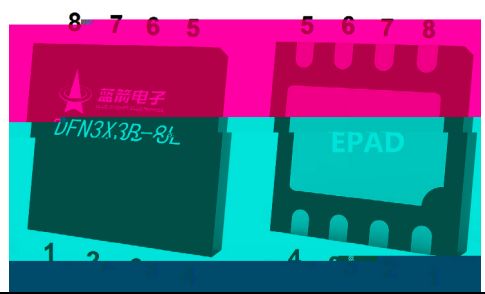
/ Applications

PDA	MP3
USB	
TWS	

/ Application Circuit



/ Pinning



PIN Num.	Symbol	Function
1	TEMP	
2	PROG	GND
3	GND	
4	VCC	
5	BAT	
6	STDBY	
7	CHRG	
8	CE	
EPAD	GND	

/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

PARAMETER	SYMBOL	RATINGS	UNITS
VCC Pin Voltage	V_{VCC}	-0.3~36.0	V
BAT Pin Voltage	V_{BAT}	-4.2~18.0	
CHRG/STDBY Pin Voltage	$V_{CHRG/STDBY}$	-0.3~13.0	
PROG Pin Voltage	V_{PROG}	-0.3~5.5	
Other Pin Voltage	$V_{TEMP/GND/CE}$	-0.3~5.5	
Operating Ambient Temperature Range	T_{OP}	-40~+85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65~+150	$^\circ\text{C}$
Lead Temperature (Soldering, 10s)	T_{solder}	260	$^\circ\text{C}$
ESD	HBM	2000	V
	CDM	1000	V

/ Electrical Characteristics($V_{CC}=5V, V_{BAT}=3.6V, T_a=25^\circ\text{C}$)

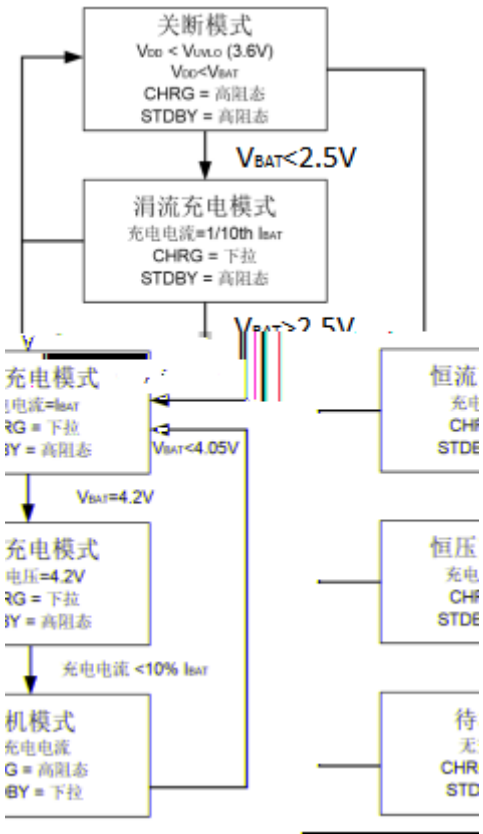
PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Input Supply Voltage	V_{CC}		4.5	5.0	36.0	V
Input Power Supply Current	I_{CC}	Charging mode ($R_{PROG}=1.0k$)		260	360	μA
		Standby mode, charging terminated		180	300	μA
		Shutdown mode (R_{PROG} not connected, $V_{CC}<V_{BAT}$, or V_{CC} V_{UV})		180	300	μA
		OVP mode($V_{CC}=30V$)		180	300	μA
Regulated Output (Float) Voltage	V_{FLOAT}	0 T_a 85 $^\circ\text{C}$, $R_{PROG}=1.0k$	4.158	4.2	4.242	V
BAT Pin Current	I_{BAT}	$R_{PROG}=1.0k$ Current mode	855	950	1045	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}	$V_{BAT} > V_{TRIKL}$, $R_{PROG}=1.0k$	62	95	128	mA
Trickle Charge Threshold	V_{TRIKL}	$R_{PROG}=1.0k$, V_{BAT} from Low to High	2.3	2.5	2.7	V
Trickle Charge Hysteresis	V_{TR_HYS}	$R_{PROG}=1.0k$	120	160	200	mV
V_{CC} Under Voltage Lockout Threshold	V_{CC_UV}	V_{CC} from Low to High	3.5	3.7	3.9	V

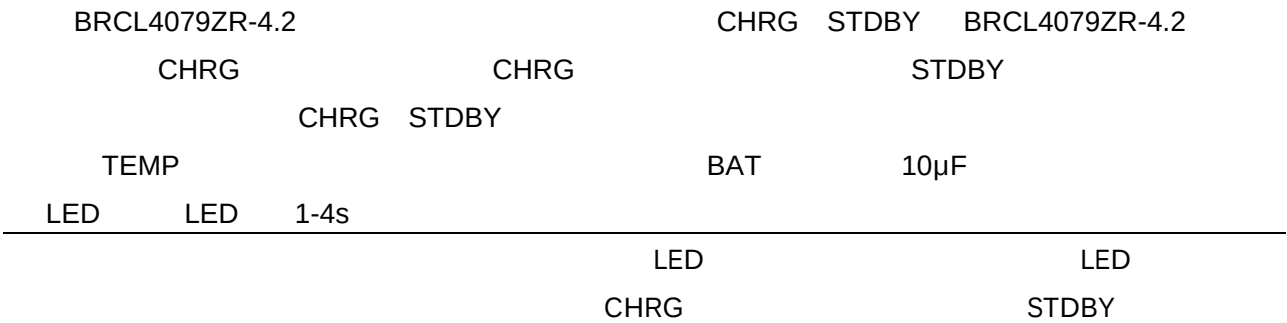
BRCL4079ZR-4.2

BRCL4079ZR-4.2					/
	1.0A			PCB	±1%
BRCL4079ZR-4.2		P	MOSFET		

/ Function description

			1/10			
	PROG		PROG	100mV		t_{TERM}
1.8ms			BRCL4079ZR-4.2			
55μA	C/10					
BAT		PROG	DC		1/10	
100mV		1.8ms	t_{TERM}			
		1/10	BRCL4079ZR-4.2			
BAT		BAT				
	BRCL4079ZR-4.2	BAT			4.05V	
V_{RECHRG}						
					PROG	





BRCL4079ZR-4.2

Rev.B May.-2025

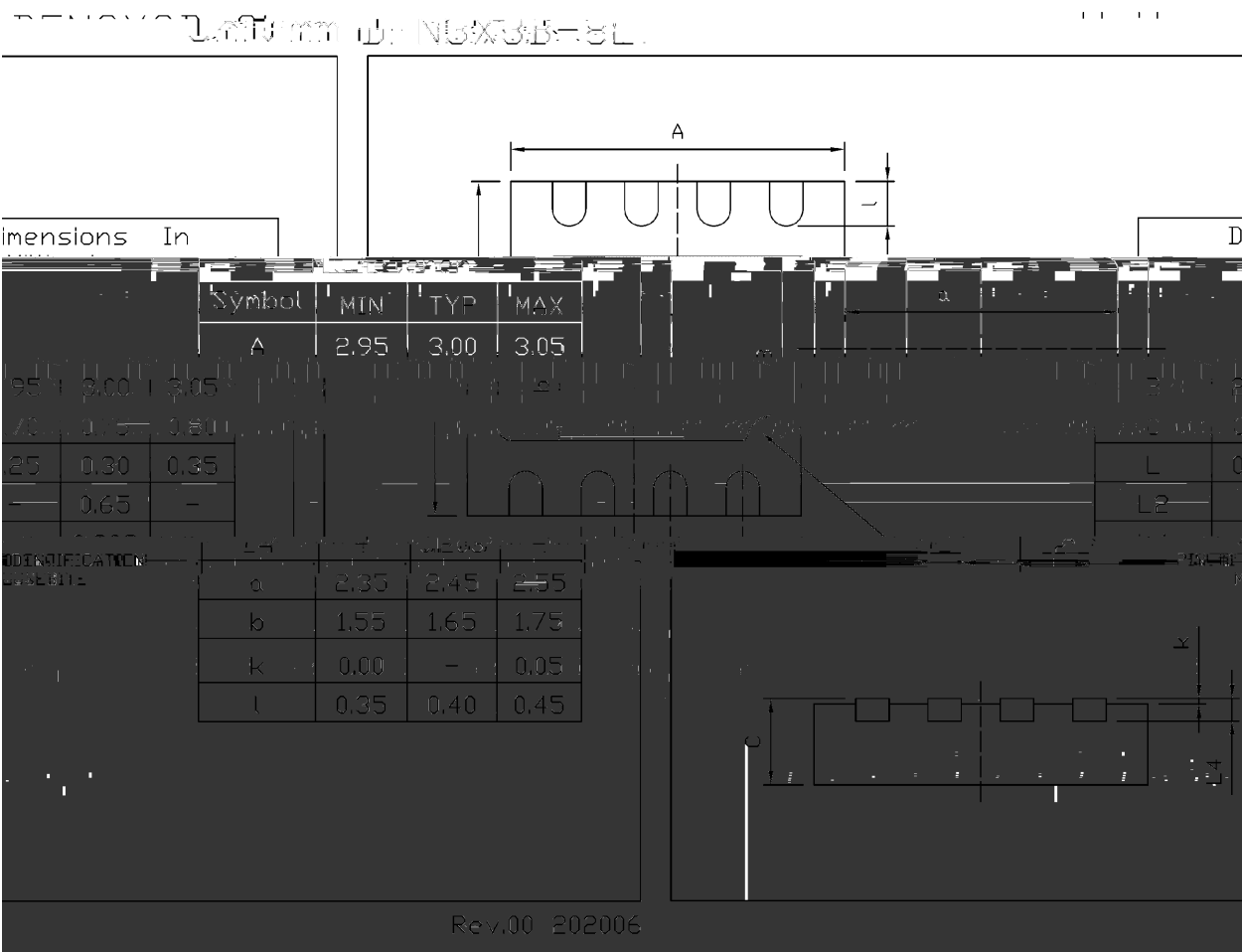


DATA SHEET

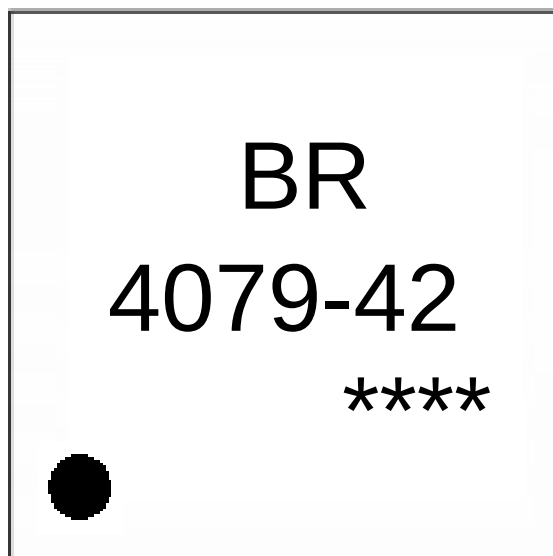
R1 R2

R1 R2

/ Package Dimensions



/ Marking Instructions



BR

4079

42

4.2V

() / 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.

/ 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		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box