

/ Descriptions

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

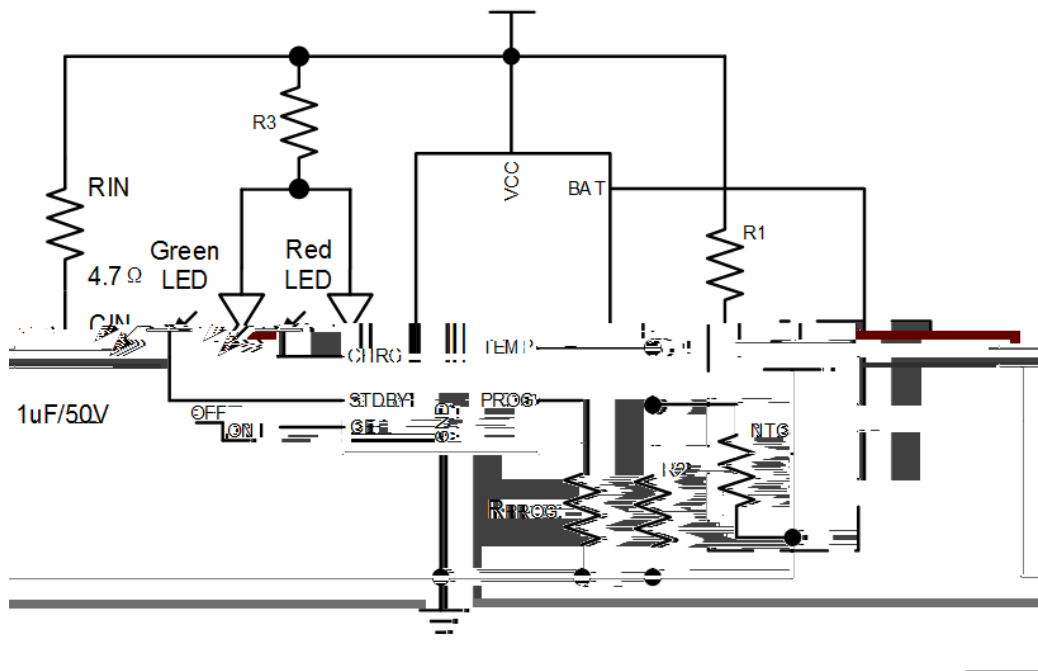
/ Features

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

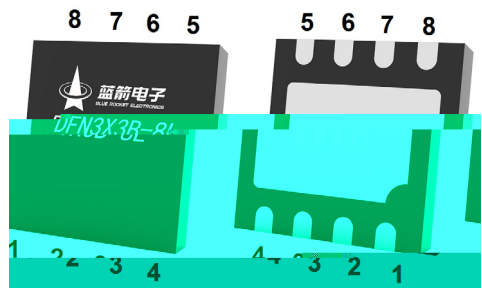
/ Applications

- ◆
- ◆
- ◆
- ◆
- ◆

/ Application Circuit



/ Pinning



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

/ 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	A
		Standby mode, charging terminated		180	300	A
		Shutdown mode (R_{PROG} not connected, $V_{CC}<V_{BAT}$, or V_{CC} V_{UV})		180	300	A
		OVP mode($V_{CC}=30V$)		180	300	A
Regulated Output (Float) Voltage	V_{FLOAT}	$0 \leq T_a \leq 85^\circ\text{C}$, $R_{PROG}=1.0k$	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	A
		Shutdown mode (R_{PROG} not connected)		± 1	± 2	A
		Sleep mode, $V_{CC}=0V$		-1	-2	A
Trickle Charge Current	I_{TRIKL}	$V_{BAT} \geq V_{TRIKL}$, $R_{PROG}=1.0k$	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

Rev.B Maq8... q8..8520.1(M)22-q85BBBDA(B).62TA(B).62 SHhttp://w

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

/ Function description



1/10

PROG

100mV

tTERM

1.8ms

55 A

C/10

BAT

100mV

1.8ms

tTERM

1/10

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DC

1/10

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BAT

BAT

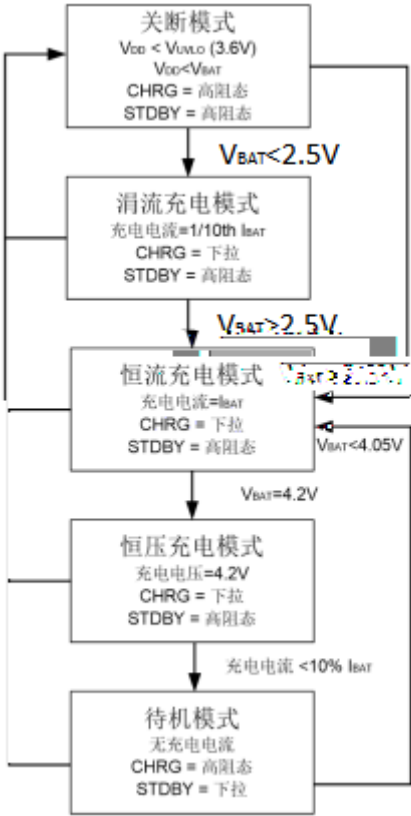
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BAT

4.05V

VRECHRG

PROG





BRCL4079ZR-4.2			CHRG	STDBY	BRCL4079ZR-4.2
CHRG		CHRG		STDBY	
CHRG		STDBY			
TEMP			BAT	10 F	
LED	LED	1-4s			

BRCL4079ZR-4.2

Rev.B May.-2025



DATA SHEET

◆ R1 R2

R1 R2

◆

BRCL4079ZR-4.2

4.05V

1.8ms

BAT

80% 90%

CHRG

◆

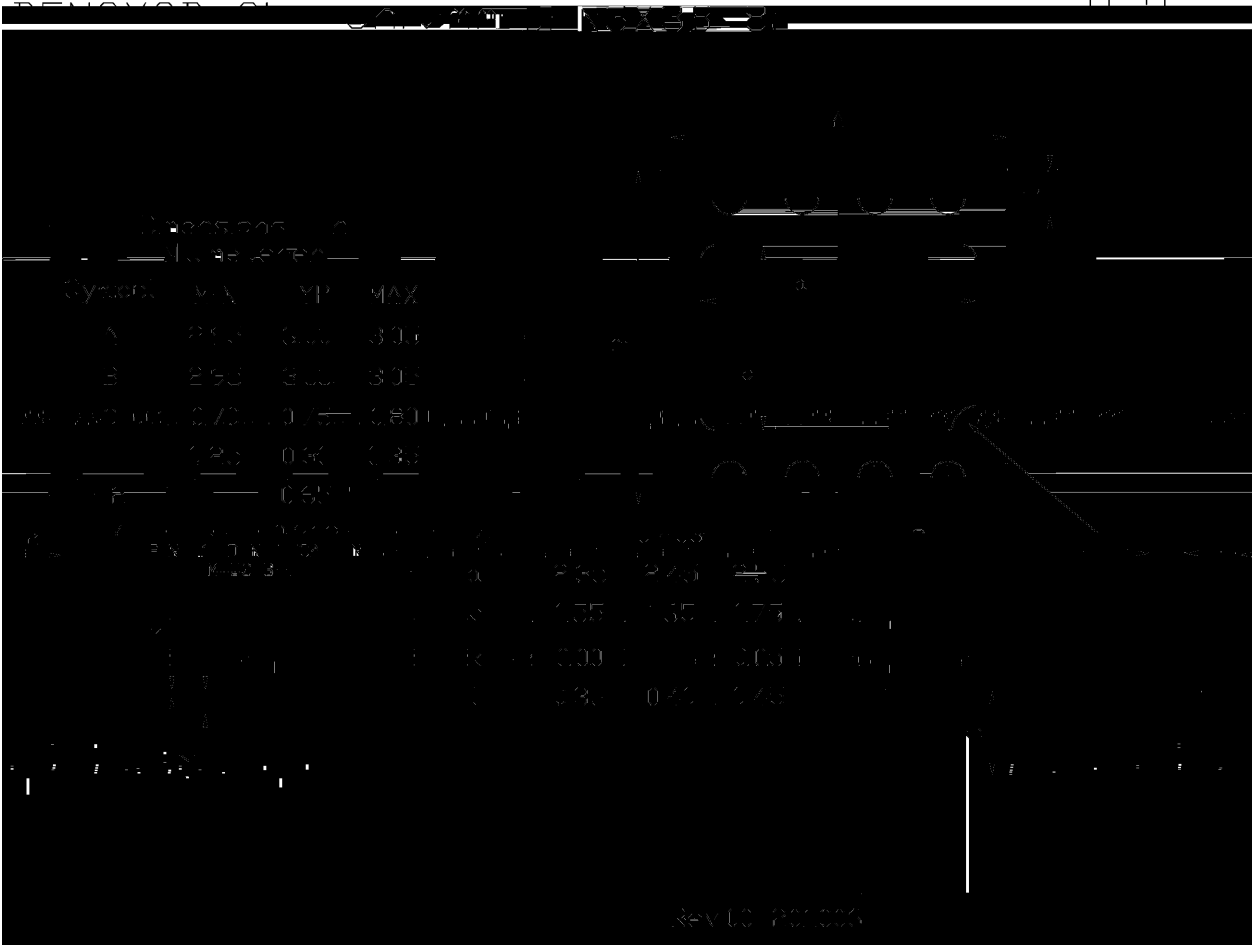
1

PROG

ESR

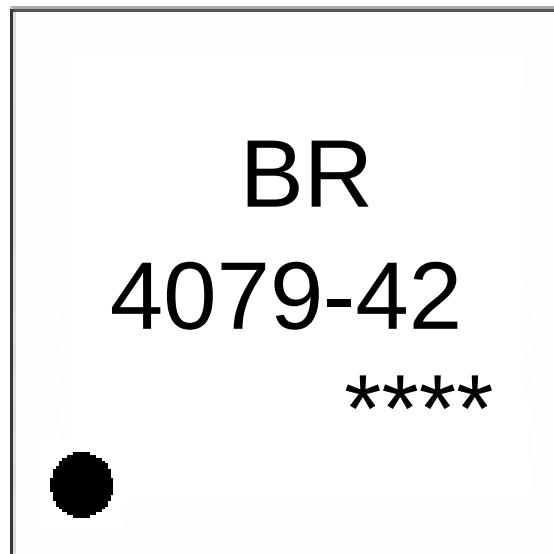
PROG

/ Package Dimensions

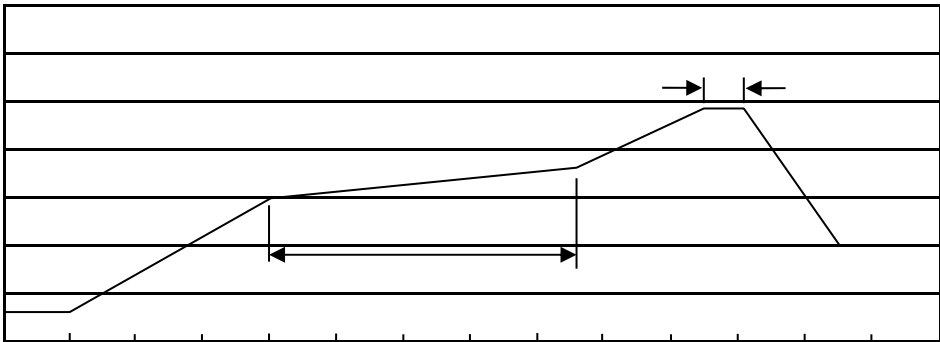




/ Marking Instructions



() / 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 (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
DFN3×3B-8L	5,000	2	10,000	6	60,000	13 ×12	360×360×50	380×335×366

/ Notices

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