

BRCL4079ZR-4.2

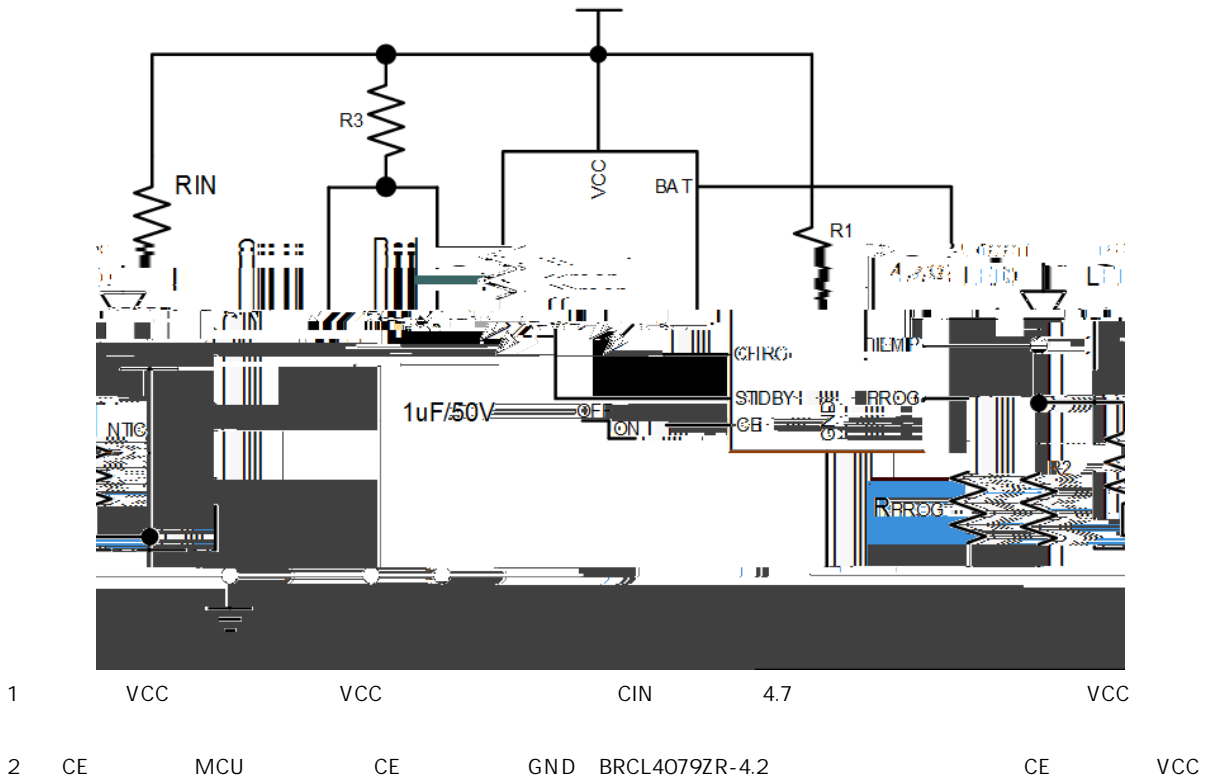
Rev.B May.-2025



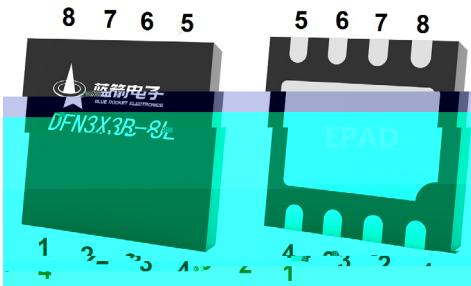
DATA SHEET

BRCL4079ZR-4.2			
BRCL4079ZR-4.2	/		
BRCL4079ZR-4.2			USB
BRCL4079ZR-4.2	PMOSFET		
	4.2V	PROG	1.0A
	BRCL4079ZR-4.2		

/ 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($T_a=25$)

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	°C
Storage Temperature	T_{stg}	-65~+150	°C
Lead Temperature (Soldering, 10s)	T_{solder}	260	°C
ESD	HBM	2000	V
	CDM	1000	V

/ Electrical Characteristics($V_{CC}=5V, V_{BAT}=3.6V, T_a=25$)

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 , $R_{PROG}=1.0k$	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
VCC 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

Rev.B May.-2025

DATA SHEET

BRCL4079ZR-4.2

Rev.B May.-2025



蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

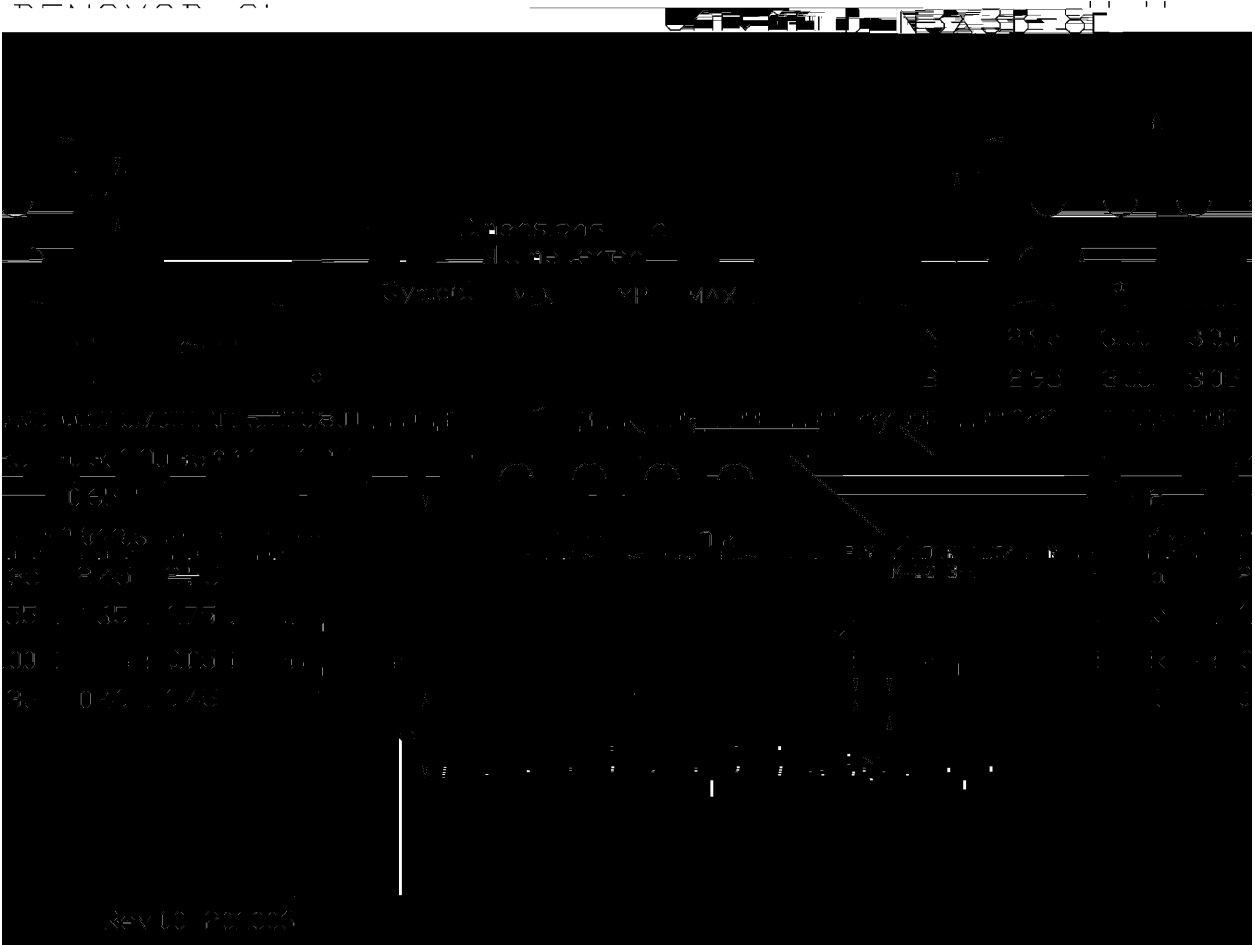
1/10
PROG 100mV tTERM
BRCL4079ZR-4.2
1.8ms
55μA C/10
BAT PROG DC 1/10
100mV 1.8ms tTERM
1/10 BRCL4079ZR-4.2
BAT BAT
BRCL4079ZR-4.2 BAT 4.05V
VRECHRG
PROG

BRCL4079ZR-4.2

Rev.B May.-2025

DATA SHEET

/ Package Dimensions



/ Marking Instructions



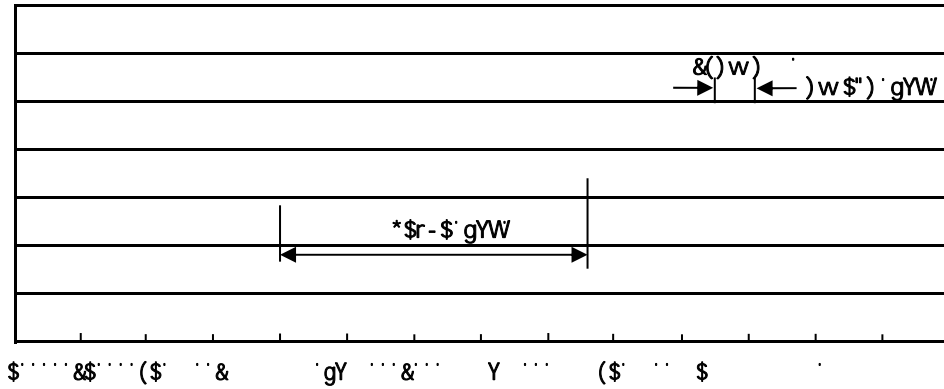
BR

4079

42

4.2V

() / K\ d g\ i Xk i \ 'Gif] \ d] fi @ ' I \] f n ' J f d \ i ` e ^ Ž G Y \$ = i \ \ ž



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
DFN3x3B-8L	5,000	2	10,000	6	60,000	13 ×12	360×360×50	380×335×366

/ Notices

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