

描述

BRCL4079YT-4.2

/

BRCL4079YT-4.2

5V

USB

MOSFET

4.2V

1/10

BRCL4079YT-4.2

 BRCL4079YT-4.2 PDFN3² 2-6L

 -40_rC +85_rC

特点

36V

6.1V

600mA

MOSFET

/

USB

4.2V

1%

2.5V

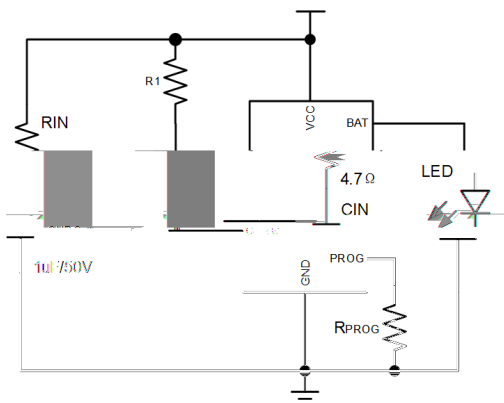
C/10

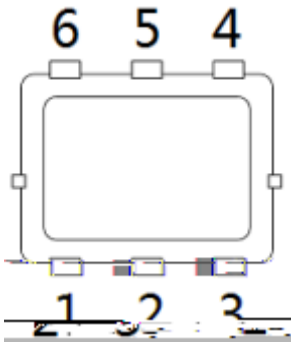
55 A

 PDFN3² 2-6L

应用

G; 8 D G*

应用电路




1	CHRG	
2	GND	
3	BAT	
4	VCC	
5	E :	
6	GI F >	

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		

电性能参数

Input Voltage Range	V_{CC}		4.5	5	36	V
Quiescent Supply Current	I_Q	Charge Mode $R_{PROG}=2.0k$		240	360	A
		Standby Mode (Charge Terminated)		220	300	A
		Shutdown Mode (R_{PROG} Not Connected, $V_{CC} < V_{BAT}$, or $V_{CC} < V_{UV}$)		220	300	A
		OVP state		120	250	A
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	A
		Shutdown Mode (R_{PROG} Not Connected)		± 1	± 2	A
		Sleep Mode, $V_{CC} = 0V$		-1	-2	A
Trickle Charge Current	I_{TRIKL}	$V_{BAT} < V_{TRIKL}$, $R_{PROG} = 2.0K$	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
VCC Undervoltage Lockout Threshold	V_{UV}	From V_{CC} Low to High	3.5	3.7	3.9	V
VCC Undervoltage Lockout Hysteresis	V_{UVHYS}	From High Low to V_{CC}	100	200	300	mV
VCC-VBAT 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	V_{RECHRG}	$V_{FLOAT} - V_{RECHRG}$	100	150	200	mV
Junction Temperature in Constant Temperature Mode	T_{LIM}			145		
Soft-Start Time	tss	$I_{BAT} = 0$ to $I_{BAT} = 950V/R_{PROG}$		20		s
Recharge Comparator Filter Time	tRECHARGE	V_{BAT} High to Low	0.8	1.8	4.0	ms
Termination Comparator Filter Time	tTERM	I_{BAT} Falling Below $I_{CHG}/10$	0.8	1.8	4.0	ms
PROG Pin Pull-Up Current	I_{PROG}			1.0		A

功能描述

BRCL4079YT-4.2	/		PCB
600mA		...1% BRCL4079YT-4.2	P
MOSFET			
BRCL4079YT-4.2	USB		

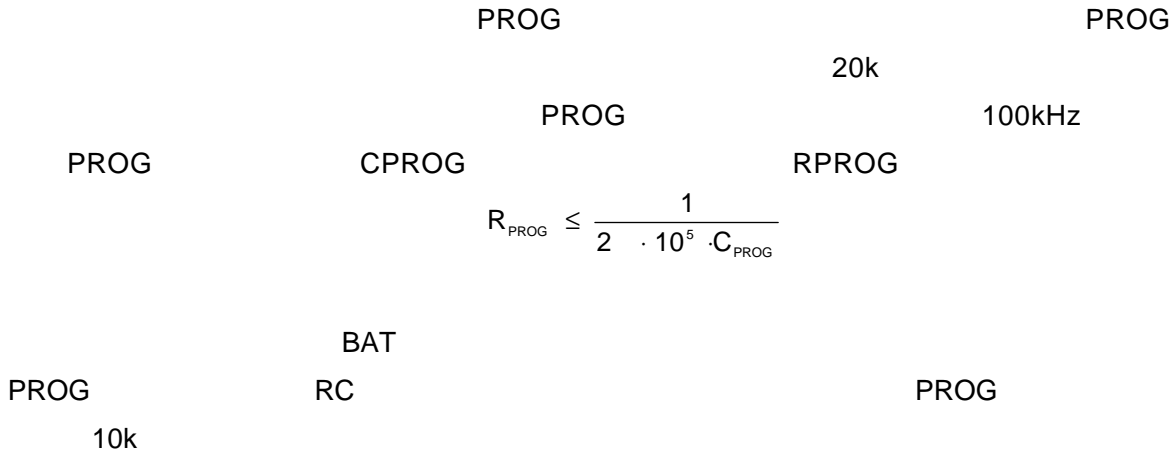
正常充电周期

VCC	UVLO	1%	PROG
	BAT	2.5V	
BRCL4079YT-4.2	1/10		
BAT	2.5V		BAT
	4.2V	BRCL4079YT-4.2	
1/10			

充电终止

PROG	PROG	1/10	
BRCL4079YT-4.2		100mV	tTERM

Rev.A Dec.-2025

功能描述
稳定性考虑


$$R_{\text{PROG}} \leq \frac{1}{2 \cdot 10^5 \cdot C_{\text{PROG}}}$$

功耗

PCB

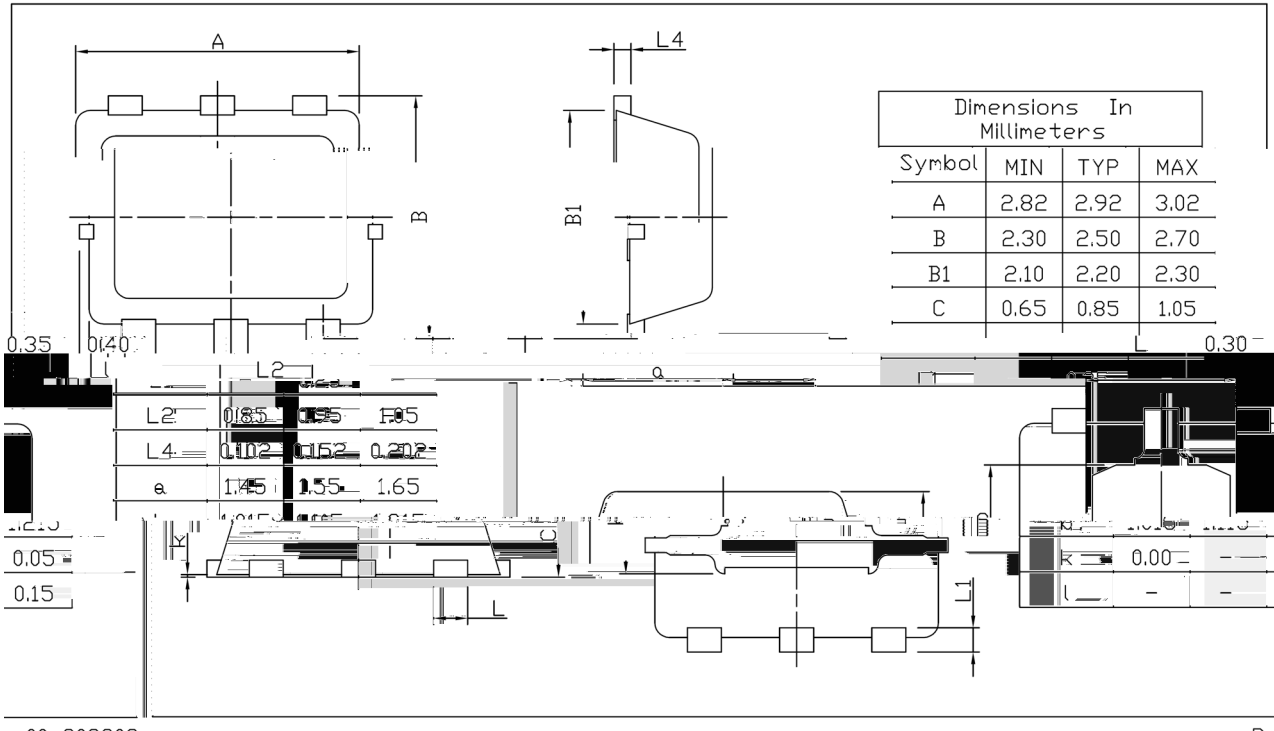
 P_D

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

外形尺寸图

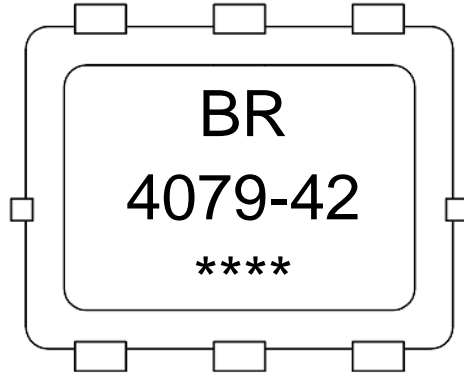
PDFN3 × 2

Unit:mm

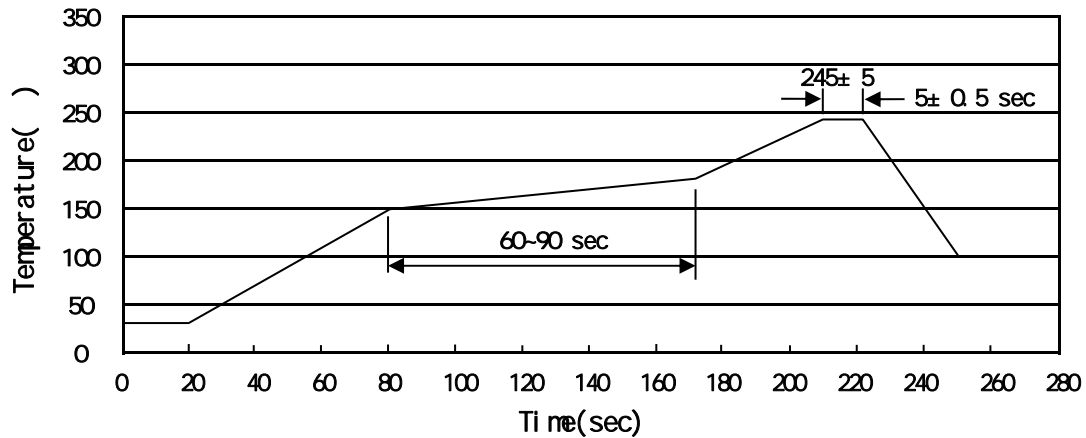


Rev.00 202208

印章说明



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+'.0\$+)
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回流焊温度曲线图 无铅 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. |

耐焊接热试验条件

260..5	10..1 sec.	Temp.:260±5°C	Time:10±1 sec
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包装规格

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
PDFN3x2-6L	3,000	10	30,000	4	120,000	7 x8	210x205x205	445x435x230

使用说明

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