

描述 / Descriptions

BRCL4079YT-4.2	/	BRCL4079YT-4.2	5V	USB
MOSFET	4.2V	1/10	BRCL4079YT-4.2	
BRCL4079YT-4.2	PDFN3Ø2-6L	-40±C	+85±C	

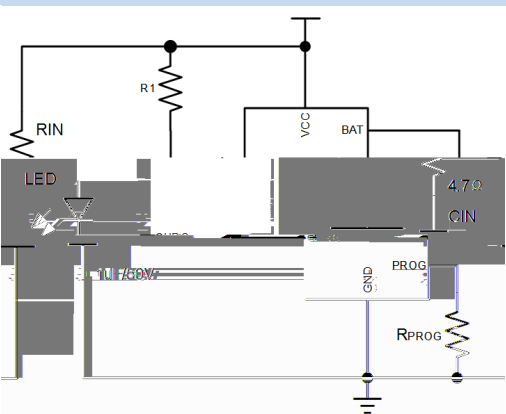
特点 / Features

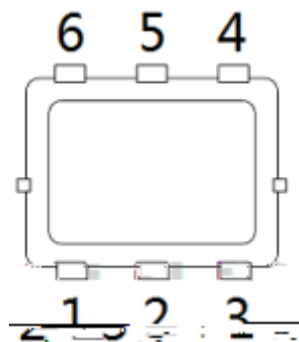
- ◆ 36V 6.1V
- ◆ 600mA
- ◆ MOSFET
- ◆ /
- ◆ USB
- ◆ 4.2V 1%
- ◆ 2.5V
- ◆ C/10
- ◆ 550A
- ◆ PDFN3Ø2-6L

应用 / Applications

- ◆ SGD P S6
- ◆
- ◆
- ◆

应用电路 / Application Circuit





PIN Num.	Symbol	Function
1	CHRG	
2	GND	
3	BAT	
4	VCC	
5	QF	
6	SUR J	

PARAMETER	SYMBOL	RATINGS	UNITS
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	3/8
Junction Temperature	T_J	150	3/8
Operating Ambient Temperature Range	T_{OP}	-40~+85	3/8
Lead Temperature (Soldering, 10s)	T_{solder}	260	3/8
Power onsumption	P_D		

电性能参数 / Electrical Characteristics($V_{IN}=5V$, $V_{BAT}=3.6V$, $T_a=25^\circ C$, unless otherwise specified)

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
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}	$0\% \leq T_A \leq 85\%$, $R_{PROG} = 2.0k$	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
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	ΔV_{RECHRG}	$V_{FLOAT} - V_{RECHRG}$	100	150	200	mV
Junction Temperature in Constant Temperature Mode	T_{LIM}			145		$^\circ C$
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

◆ 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		$n \rightarrow \hat{O} t$	$S = B$

◆ 充电终止

		1/10	
PROG	PROG	100mV	tTERM
BRCL4079YT-4.2			

BRCL4079YT-4.2

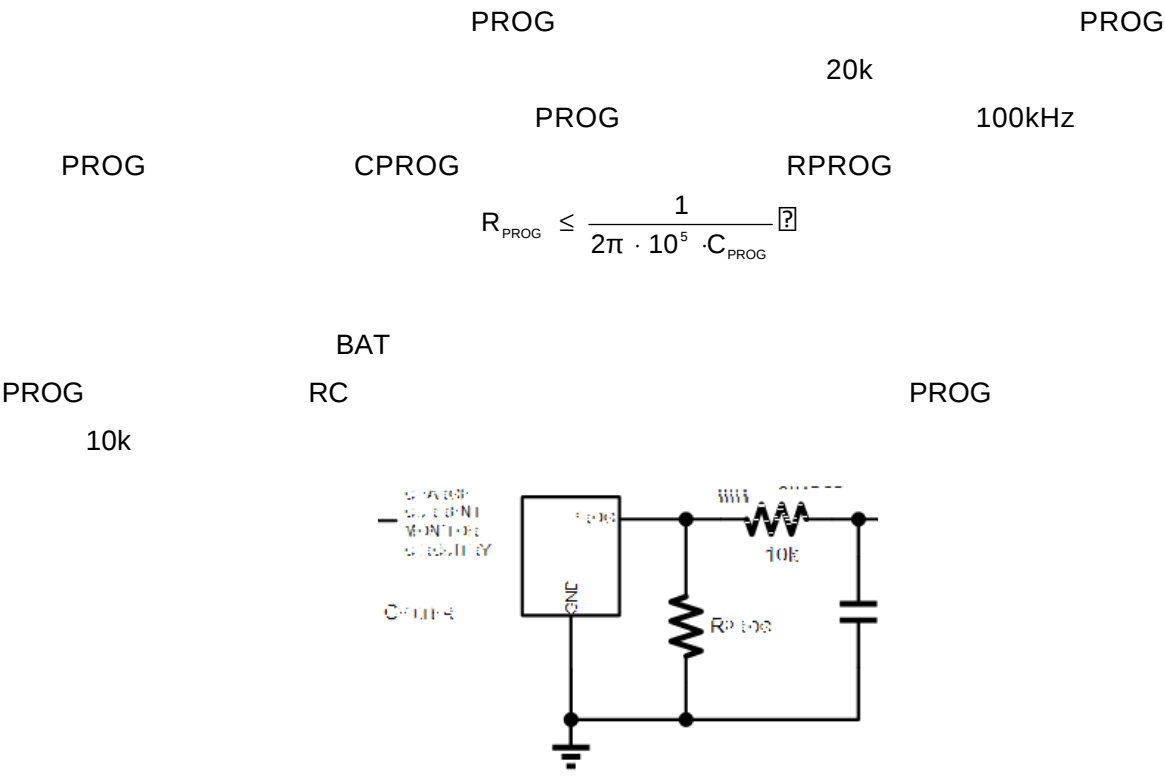
Rev.A Dec.-2025



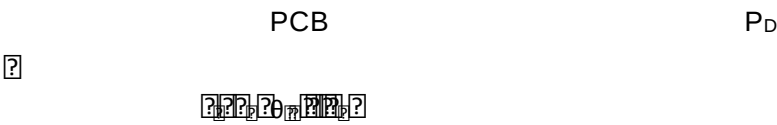
DATA SHEET

功能描述 / Function description

◆ 稳定性考虑

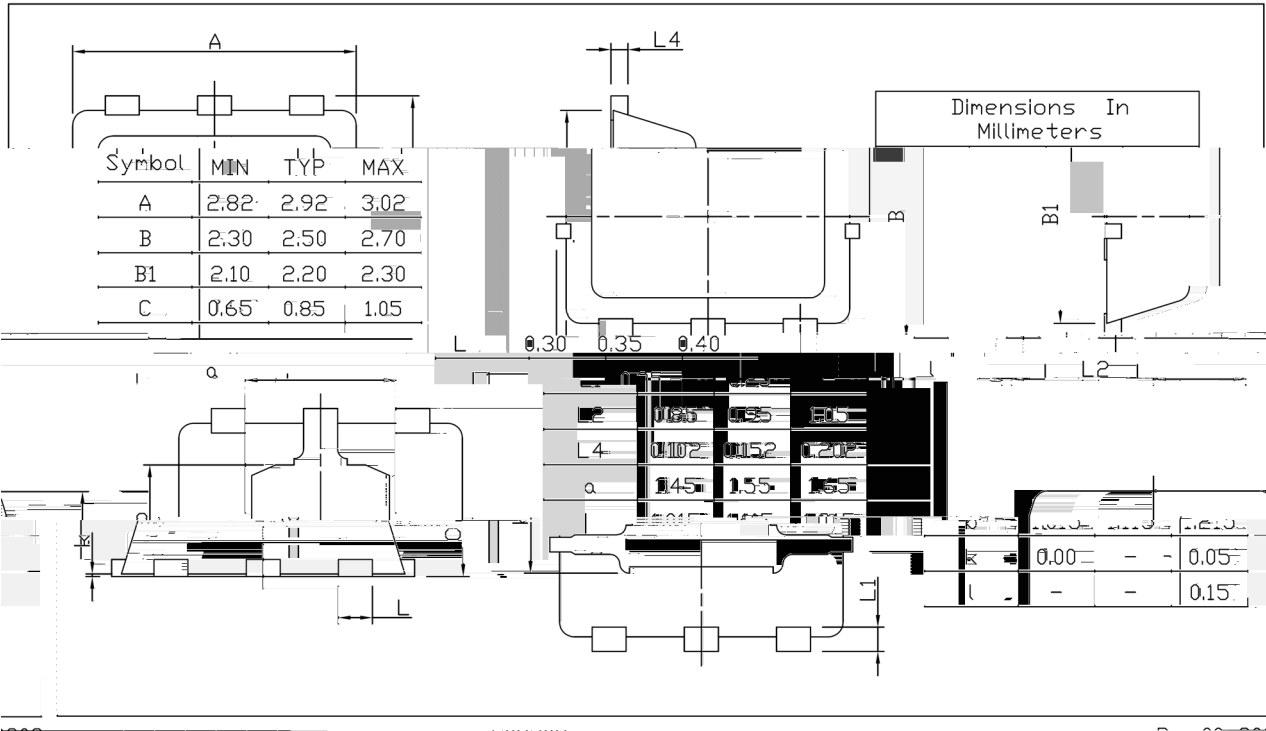


◆ 功耗



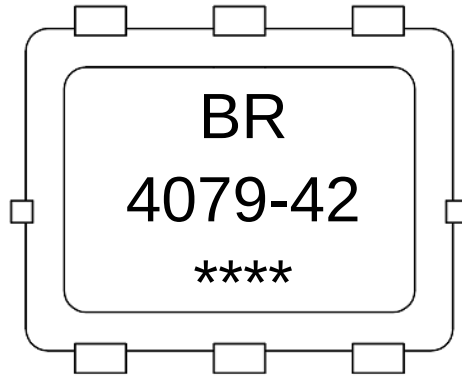
外形尺寸图 / Package Dimensions

PDFN3 X2Unit:mm



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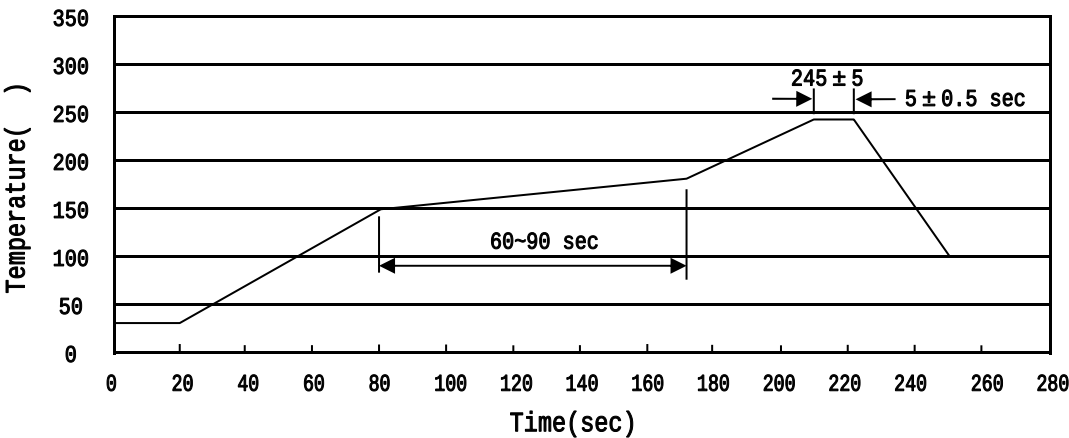
印章说明 / Marking Instructions



EU

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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 / Resistance to Soldering Heat Test Conditions

260 ± 5%

10 ± 1 sec.

Temp.:260±5℃

Time:10±1 sec

包装规格 / Packaging SPEC.

/ 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
PDFN3×2-6L	3,000	10	30,000	4	120,000	7 ×8	210×205×205	445×435×230

使用说明 / Notices

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