

BRCL4079ME-4.2

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BRCL4079ME-4.2

5V

USB

MOSFET

4.2V  
1/10 BRCL4079ME-4.2

BRCL4079ME-4.2 SOT23-5  
-40,C +85,C

◆ 36V 6.1V

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Input Voltage Range	V <sub>CC</sub>		4.5	5	36	V
Quiescent Supply Current	I <sub>Q</sub>	Charge Mode R <sub>PROG</sub> =2.0k		240	360	A
		Standby Mode (Charge Terminated)		220	300	A
		Shutdown Mode (R <sub>PROG</sub> Not Connected, V <sub>CC</sub> < V <sub>BAT</sub> , or V <sub>CC</sub> < V <sub>UV</sub> )		220	300	A
		OVP state		120	250	A
Regulated Output (Float)Voltage	V <sub>FLOAT</sub>	0 T <sub>A</sub> 85 , R <sub>PROG</sub> = 2.0k	4.158	4.200	4.242	V
BAT Pin Current	I <sub>BAT</sub>	R <sub>PROG</sub> =2.0k, Current Mode	427.5	475	522.5	mA
		Standby Mode, V <sub>BAT</sub> = 4.2V	0	-2.5	-6	A
		Shutdown Mode (R <sub>PROG</sub> Not Connected)		±1	±2	A
		Sleep Mode, V <sub>CC</sub> = 0V		-1	-2	A
Trickle Charge Current	I <sub>TRIKL</sub>	V <sub>BAT</sub> < V <sub>TRIKL</sub> , R <sub>PROG</sub> = 2.0K	35	47.5	60	mA
Trickle Charge Threshold Voltage	V <sub>TRIKL</sub>	R <sub>PROG</sub> = 2.0k, V <sub>BAT</sub> Rising	2.3	2.5	2.7	V
Trickle Charge Hysteresis Voltage	V <sub>TRHYS</sub>	R <sub>PROG</sub> =2.0k	120	160	200	mV
V <sub>CC</sub> Undervoltage Lockout Threshold	V <sub>UV</sub>	From V <sub>CC</sub> Low to High	3.5	3.7	3.9	V
V <sub>CC</sub> Undervoltage Lockout Hysteresis	V <sub>UVHYS</sub>	From V <sub>CC</sub> High to Low	100	200	300	mV
V <sub>CC</sub> -V <sub>BAT</sub> Lockout Threshold Voltage	V <sub>ASD</sub>	V <sub>CC</sub> from Low to High	100	125	150	mV
		V <sub>CC</sub> from High to Low	30	65	100	mV
C/10 Termination Current Threshold	I <sub>TERM</sub>	R <sub>PROG</sub> = 2.0k	35	47.5	60	mA
PROG Pin Voltage	V <sub>PROG</sub>	R <sub>PROG</sub> = 2.0k, Current Mode	0.9	1.0	1.1	V
CHRG Pin Output Low Voltage	V <sub>CHRG</sub>	I <sub>CHRG</sub> = 5mA		0.3	0.6	V

Recharge Battery Threshold Tc.....467 T-.0019 Tc0.2125 Tc0 Tw(Vo)5&lt;00ade



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BRCL4079ME-4.2	/		PCB
600mA		...1% BRCL4079ME-4.2	P
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VCC	UVLO	1%	PROG
	BAT	2.5V	
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BAT	2.5V		BAT
	4.2V	BRCL4079ME-4.2	
1/10			

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	PROG		PROG	950
		$R_{PROG}=950/I_{CHG}$	$I_{CHG}=950/R_{PROG}$	
	PROG	BAT		
		$I_{BAT}=(V_{PROG}\times 950)/R_{PROG}$		

.....



1/10

PROG                      PROG                      100mV                      tTERM

BRCL4079ME-4.2                                                                55 A

C/10

98K                      GI F >                      (&'

(' ' d M                      (%d j                      k< < D                      9I : C+ ' . OD < \$+ %                      98K

98K

9I : C+ ' . OD < \$+ %                      98K                      +%, M

M < ? I >

GI F >





9I : C+' . OD <\$+%` : ?I > 9I : C+' . OD <\$+%`  
 : ?I > : ?I > : ?I >

98K	(' =	C<;	C<; (\$+
		LED	
UVLO			
BAT	10 F	LED	T=1-4s



145,C  
 BRCL4079ME-4.2  
 BRCL4079ME-4.2



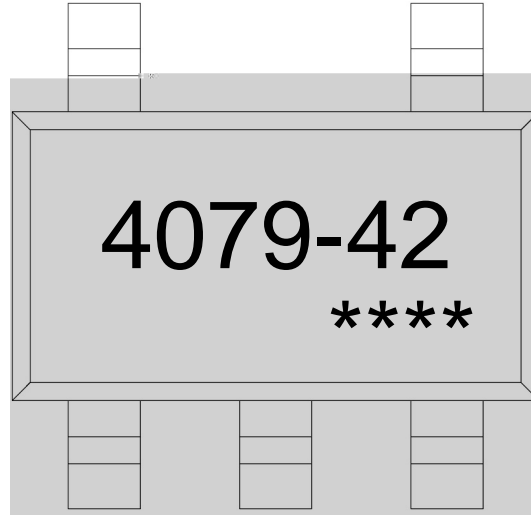
UVLO 200mV VCC MOSFET VCC  
 30mV UVLO UVLO  
 VCC 100mV



BAT BRCL4079ME-4.2 1.8ms t<sub>RECHARGE</sub>  
 4.05V 80% 90%



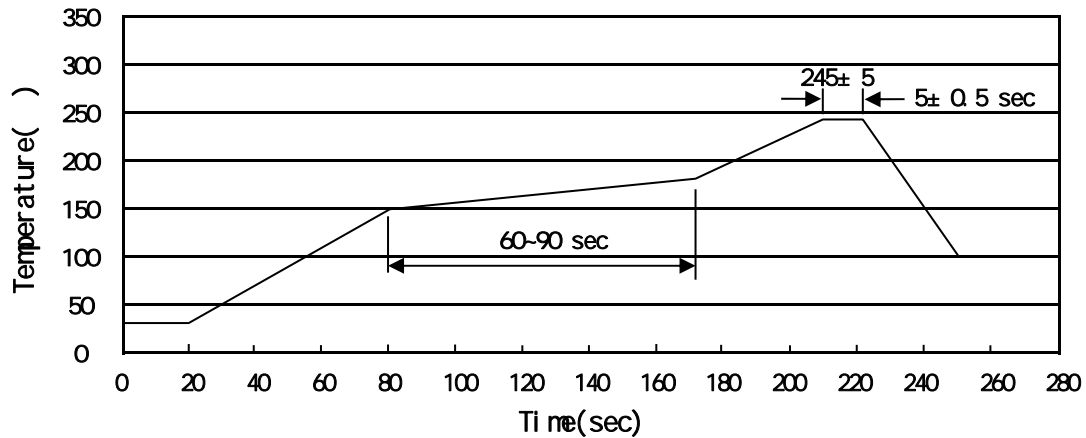




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### Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- |   |           |             |  |
|---|-----------|-------------|--|
| 1 | 150 ~ 180 | 60 ~ 90sec; | 1. Preheating: 150~180 °C, Time: 60~90sec.       |
| 2 | 245 ± 5   | 5 ± 0.5sec; | 2. Peak Temp.: 245 ± 5 °C, Duration: 5 ± 0.5sec. |
| 3 | 2 ~ 10    | /sec.       | 3. Cooling Speed: 2~10 °C/sec.                   |

260 ± 5

10 ± 1 sec.

Temp.: 260 ± 5

Time: 10 ± 1 sec

/ REEL

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
SOT23-5/6	3,000	10	30,000	4	120,000	7 x 8	210x205x205	445x435x230

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