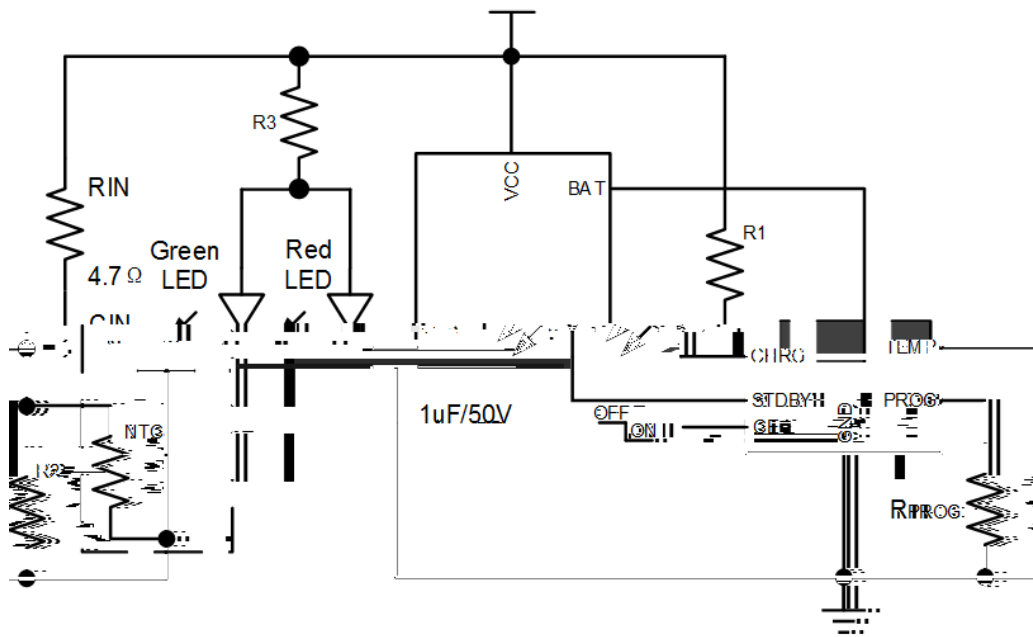
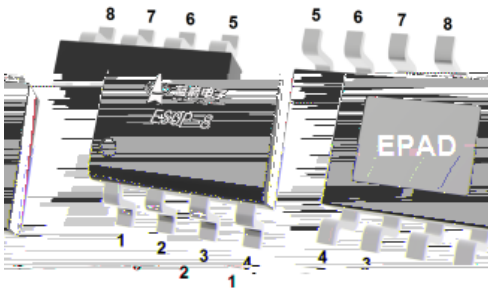


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BRCL4079SE-4.2					
BRCL4079SE-4.2	/				
BRCL4079SE-4.2			USB		
BRCL4079SE-4.2	PMOSFET				
BRCL4079SE-4.2 .2		0	2	°	~



1	VCC	VCC	CIN	4.7	VCC
2	CE	MCU	CE	GND	BRCL4079SE-4.2
					CE
					VCC

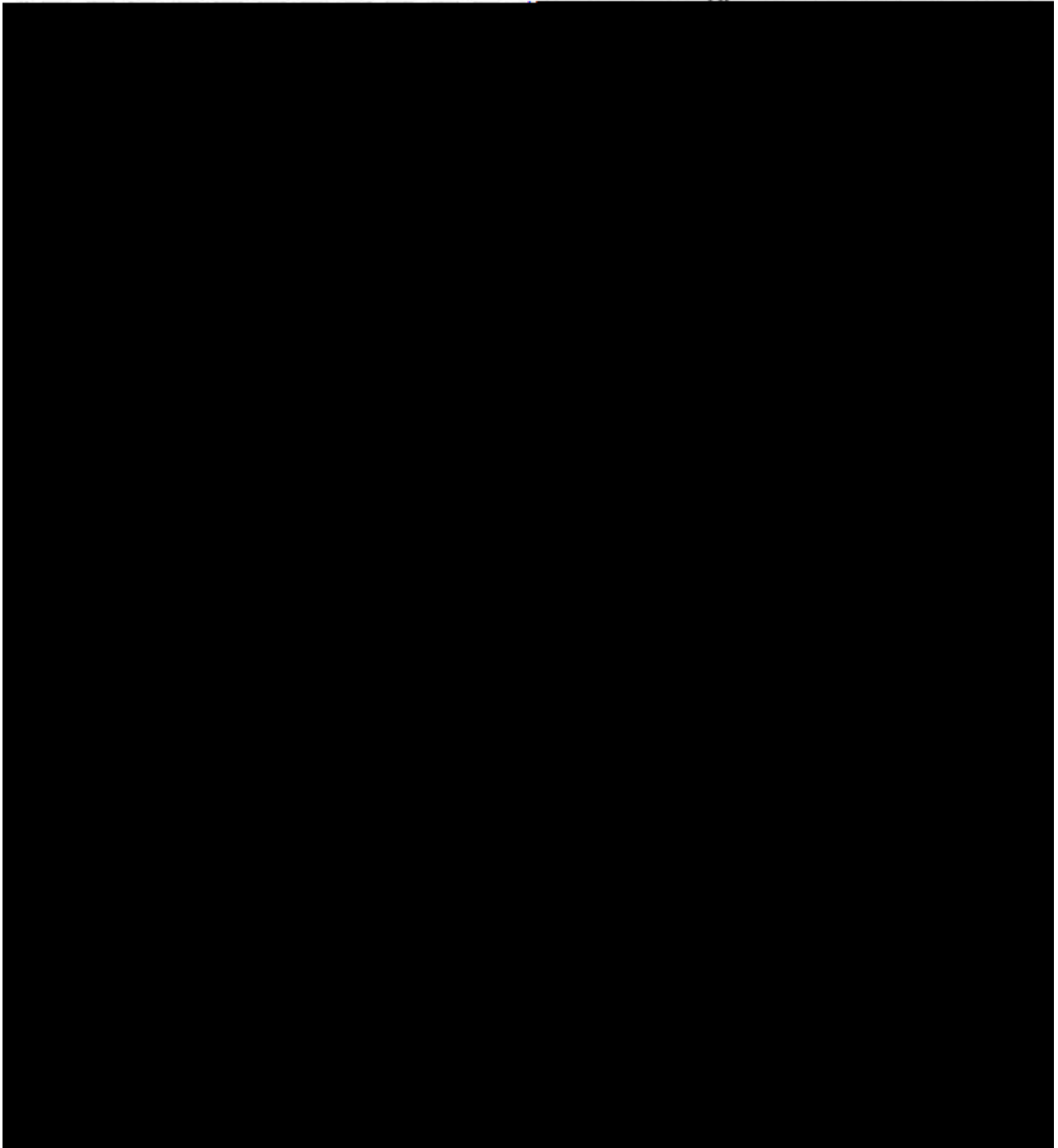


1	TEMP	
2	PROG	GND
3	GND	
4	VCC	
5	BAT	
6	STDBY	
7	CHRG	
8	CE	
EPAD	GND	

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	$V_{TEMP/CE}$	-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

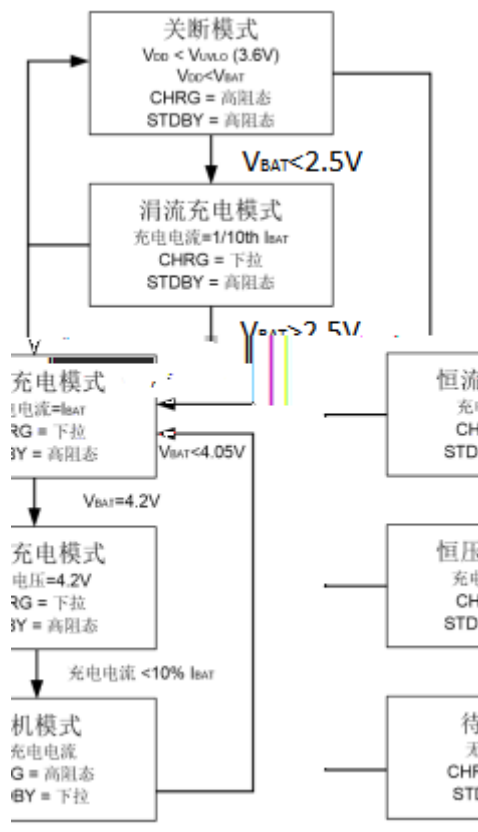
Input Supply Voltage	$V_{CC}$		4.5	5.0	36.0	V
Input Power Supply Current	$I_{CC}$	Charging mode ( $R_{PROG}=1.0K$ )		260	360	$\mu A$
		Standby mode, charging terminated		180	300	$\mu A$
		Shutdown mode ( $R_{PROG}$ not connected, $V_{CC}<V_{BAT}$ , or $V_{CC}$ $V_{UV}$ )		180	300	$\mu A$
		OVP mode( $V_{CC}=30V$ )		180	300	$\mu A$
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	$\mu A$
		Shutdown mode ( $R_{PROG}$ not connected)		1	2	$\mu A$
		Sleep mode, $V_{CC}=0V$		-1	-2	$\mu A$
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

V <sub>CC</sub> Under voltage Lockout Hysteresis	V <sub>CC_UV_HYS</sub>	V <sub>CC</sub> from High to Low	100	200	300	mV
V <sub>CC</sub> -V <sub>BAT</sub> Lockout Threshold	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 Charging Termination Current	I <sub>TERM</sub>	R <sub>PROG</sub> =1.0k	62	95	128	mA
R <sub>PROG</sub> voltage at Constant Current Mode	V <sub>PROG</sub>	R <sub>PROG</sub> =1.0k, Current mode	0.9	1.0	1.1	V
CHRG outputs low voltage	V <sub>CHRG</sub>	I <sub>CHRG</sub> =5mA		0.3	0.6	V
STDBY outputs low voltage	V <sub>STDBY</sub>	I <sub>STDBYG</sub> =5mA		0.3	0.6	V
Rechargeable Battery Voltage	V <sub>RECHRG</sub>	V <sub>FLOAT</sub> -V <sub>RECHARH</sub>	100	150	200	mV
Junction temperature in limited temperature mode	T <sub>LIM</sub>			145		
Static Drain-Source On-Resistance	R <sub>DS(on)</sub>			500		mΩ
Soft start time	t <sub>ss</sub>	I <sub>BAT</sub> = 0 to I <sub>BAT</sub> = 950V/R <sub>PROG</sub>		20		μs
Recharge Comparator Filtering Time	t <sub>RECHARG</sub>	V <sub>BAT</sub> from High to Low	0.8	1.8	4.0	ms
Terminate comparator filtering Time	t <sub>TERM</sub>	I <sub>BAT</sub> drop to I <sub>CHG</sub> /10	0.8	1.8	4.0	ms
PROG pin pull-up current	I <sub>PROG</sub>			1.0		μA
TEMP high-side protection voltage	V <sub>TEMP-H</sub>			80	82	%V <sub>CC</sub>
TEMP low-side protection voltage	V <sub>TEMP-L</sub>		43	45		%V <sub>CC</sub>



BRCL4079SE-4.2					/
	1.0A			PCB	± 1%
BRCL4079SE-4.2		P	MOSFET		
				BRCL4079SE-4.2	USB
VCC	UVLO		PROG		1%
				BAT	V <sub>TRIKL</sub>
			BRCL4079SE-4.2	1/10	
BAT	V <sub>TRIKL</sub>				BAT
	V <sub>FLOAT</sub>		BRCL4079SE-4.2		
	1/10				
		PROG			PROG
950					
		R <sub>PROG</sub> =950/I <sub>CHG</sub>	I <sub>CHG</sub> =950/R <sub>PROG</sub>		
BAT		PROG			
			I <sub>BAT</sub> =(V <sub>PROG</sub> × 950)/R <sub>PROG</sub>		
0.5A					R <sub>PROG</sub>

1/10  
 PROG 100mV tTERM  
 BRCL4079SE-4.2  
 1.8ms  
 55μA C/10  
 BAT PROG DC 1/10  
 100mV 1.8ms tTERM  
 1/10 BRCL4079SE-4.2  
 BAT BAT  
 BRCL4079SE-4.2 BAT 4.05V  
 VRECHRG  
 PROG





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BRCL4079SE-4.2  
4.05V

1.8ms

BAT

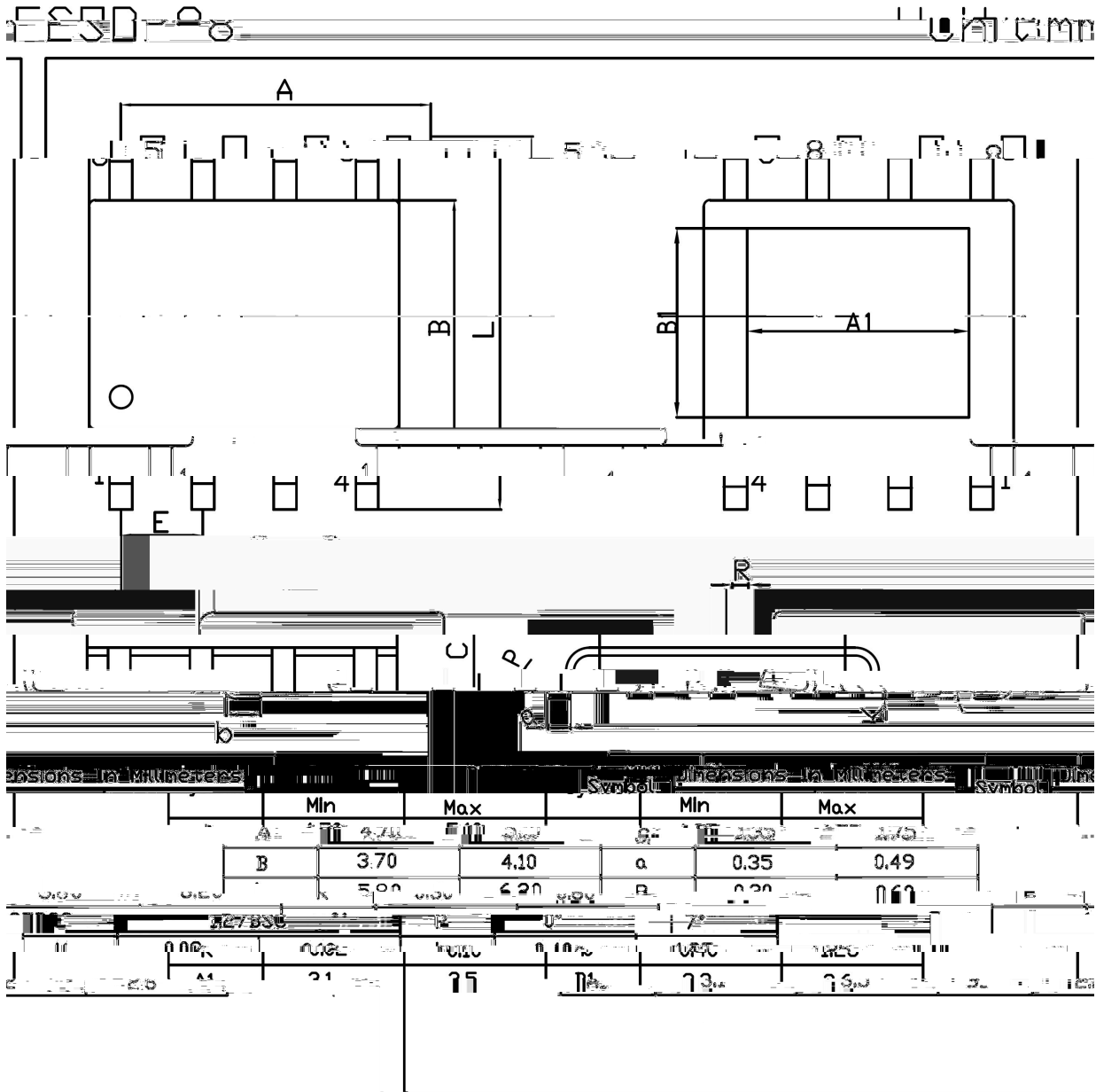
80% 90%

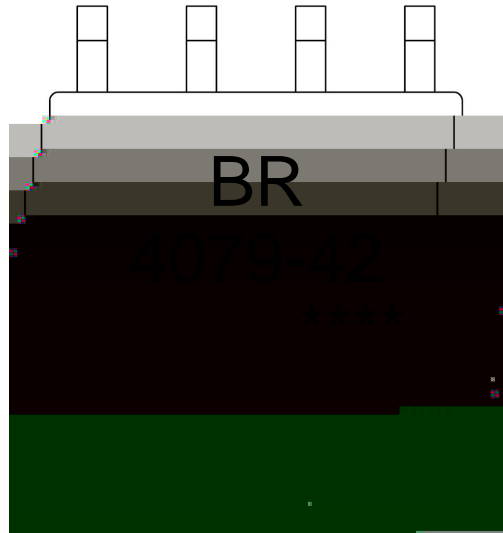
CHRG

ESR

1

PROG





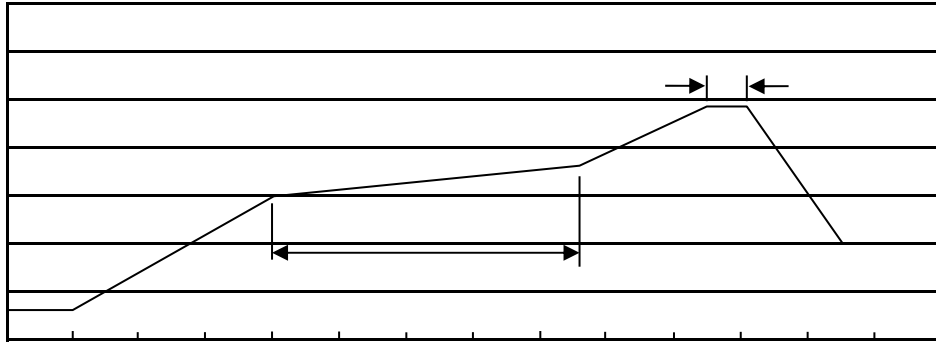
BR

4079

42

4.2v

\*\*\*\*


**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.            |

260±5

10±1 sec.

Temp.:260±5

Time:10±1 sec

/ REEL

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOP/ESOP-8	4,000	2	8,000	6	48,000	13 ×12	360×360×50	380×335×366

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