

器件

BRCL4058NSE	1A	/	BRCL4058NSE
P-MOSFET		4.2V	4.2V
		1/10	
BRCL4058NSE			

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VDD 6.8V OVP
36V

0V
1A
/ /

2.8V

ESOP-8
RoHS

接口

USB

接口电路

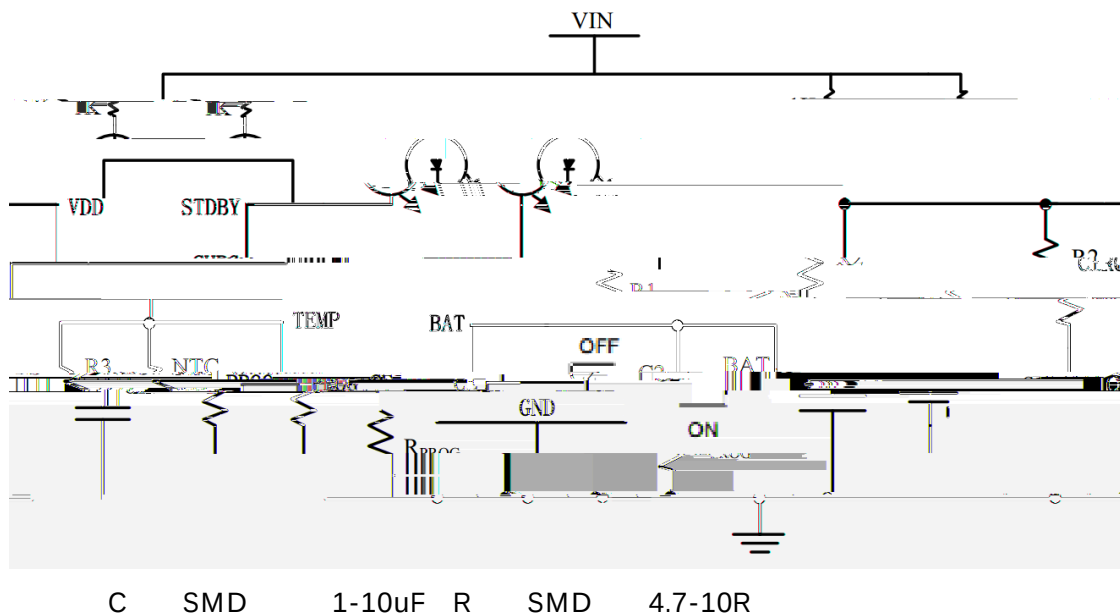
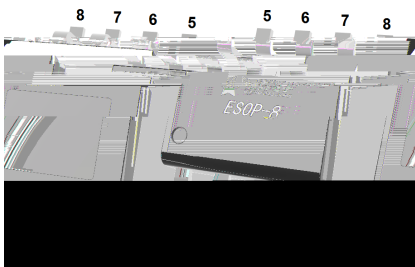


图 1



1	TEMP	
2	PROG	
3	GND	
4	VDD	5V
5	BAT	
6	STDBY	
7	CHRG	
8	CE	

表 1

VDD/CHRG/STDBY Pin Voltage	$V_{VDD/CHRG/STDBY}$	-0.3~36	V
VCE Pin Voltage	V_{CE}	-0.3~32	
BAT Pin Voltage	V_{BAT}	-5~15	
PROG Pin Voltage	V_{PROG}	-0.3~6	
TEMP Pin Voltage	V_{TEMP}	-0.3~15	
Operating Ambient Temperature Range	T_{OP}	-40~+85	°C
Storage Temperature	T_{Stg}	-55~+150	°C
Lead Temperature (Soldering, 10s)	T_{solder}	260	°C
ESD	HBM	2000	V
	MM	200	V

1 3 A

Input Supply Voltage	V _{DD}		4.5	5.0	6.0	V
V _{DD} Under Voltage Lockout Threshold	V _{DD_UV}	V _{DD} from Low to High		3.8		V
V _{DD} Under voltage Lockout Hysteresis	V _{DD_UV_HYS}	V _{DD} from High to Low		200		mV
Input Over-Voltage Protection Voltage	V _{DD_OVP}		6.3	6.8	7.3	V
Input Over-Voltage Protection Voltage Hysteresis	V _{DD_OVP_HYS}			500		mV
Input Power Supply Current	I _{CC}	Charging mode (R _{PROG} =1K)		240	360	μA
		Standby mode, charging terminated		70	120	μA
		Shutdown mode (R _{PROG} not connected, V _{CC} <V _{BAT})		50	100	μA
R _{PROG} voltage at Constant Current Mode	V _{PROG}	V _{DD} =5V;R _{PROG} =1K	0.85	1	1.15	V
BAT Pin Current	I _{BAT}	V _{DD} =5V;V _{BAT} =3.6V R _{PROG} =1K		1000		mA
		V _{DD} not connected V _{BAT} =4V		0.5	1	μA
Trickle Charge Current	I _{TRIKL}	V _{BAT} V _{TRIKL} R _{PROG} =1K		100		mA
C/10 Charging Termination Current	I _{TERM}	R _{PROG} =1K		100		mA
Trickle Charge Threshold	V _{TRIKL}	V _{BAT} from Low to High		2.8		V
Trickle Charge Hysteresis	V _{TR_HYS}	V _{BAT} from High to Low		150		mV
Regulated Output (Float) Voltage	V _{FLOAT}	V _{DD} =5V;R _{PROG} =1K	4.158	4.2	4.242	V
Rechargeable Battery Voltage	V _{RECHRG}	V _{FLOAT} -V _{RECHARH}		150		mV
Recharge Comparator Filtering Time	T _{RECHARG}	V _{BAT} from High to Low	0.8	2	4	mS
Static Drain-Source On-Resistance	R _{DS(on)}	V _{BAT} =3.8V;R _{PROG} =1K		700		mΩ

CHRG Pin Output Current	I _{CHRG}	V _{DD} =5V;V _{CHRG} =1V	1	2.5	5	mA
STDBY Pin Output Current	I _{STDBY}	V _{DD} =5V;V _{STDBY} =1V	1	2.5	5	mA
Internal Temperature Compensation	T _{OTC}			140		
Overttemperature Detection Threshold	T _{OTPH}					

Rev.B Aug.-2025

型号

BRCL4058NSE

USB

AC

/

1A

,

36V

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~ 1 7 0

140

BRCL4058NSE

P 2 4

UVLO

VDD
VDD

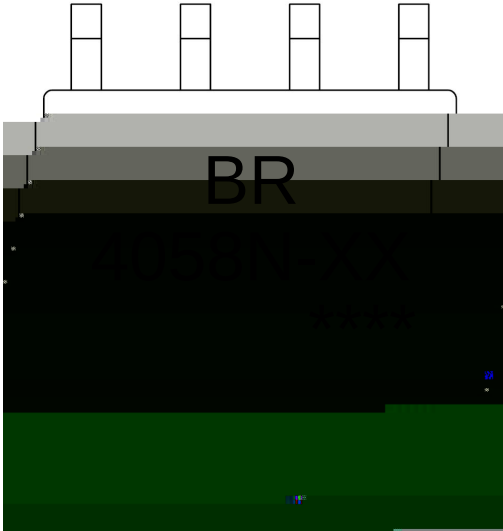
VDD
200mV

5

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4. 引脚



BR
4058N
XX

BRCL4058NSE-4.2	BR/4058N-42/****

测试工艺规范

Whp shudwxuh Suriloh i ru LU Uhior z Vroghulqj+Se0luhh,

- 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.