



XYT5081E USB 5V

磷酸铁

IC

XYT5081E

XYT5081E

XYT5081E

5V

磷酸铁

10W 2A

IC XYT5081E

MOS

90%

BOM

LED

XYT5081E

90%

MOS

XYT5081E

5V

600Khz

2.2uH

5V

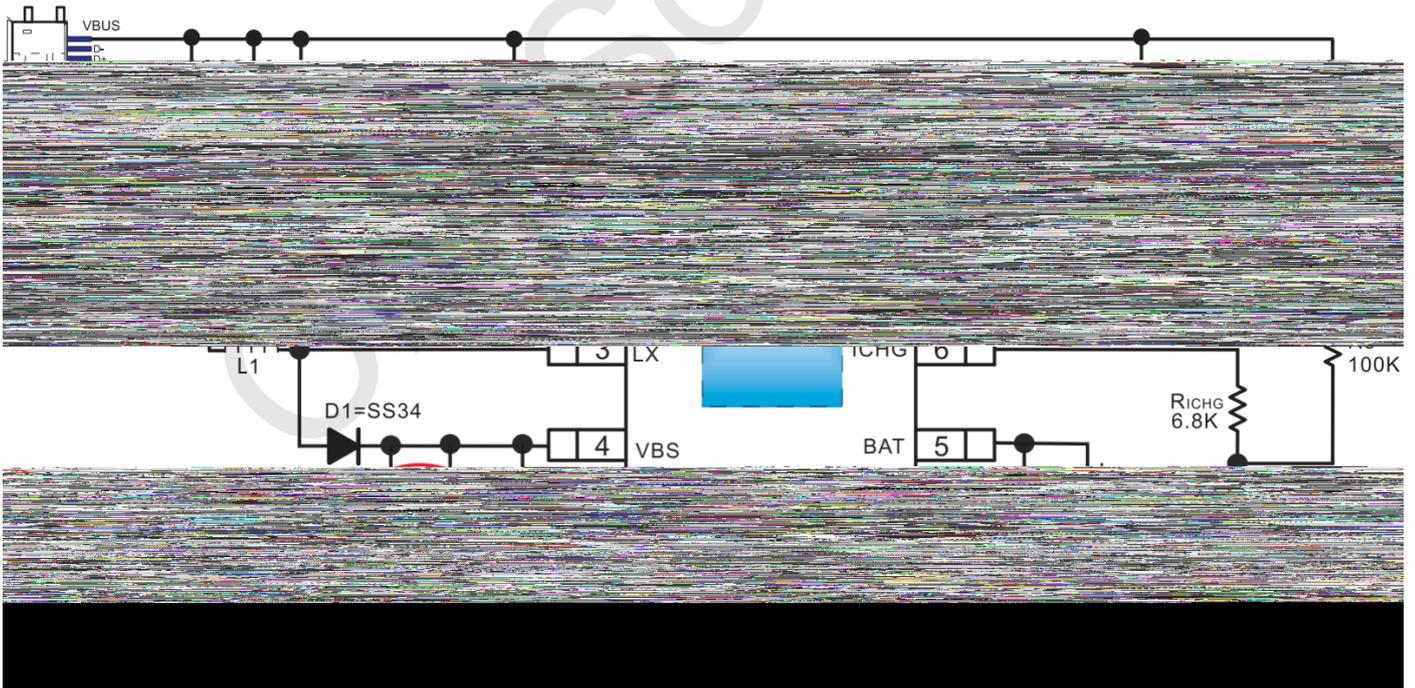
IC  
ESD 4KV

XYT5081E

XYT5081E

ESOP8L

XYT5081E





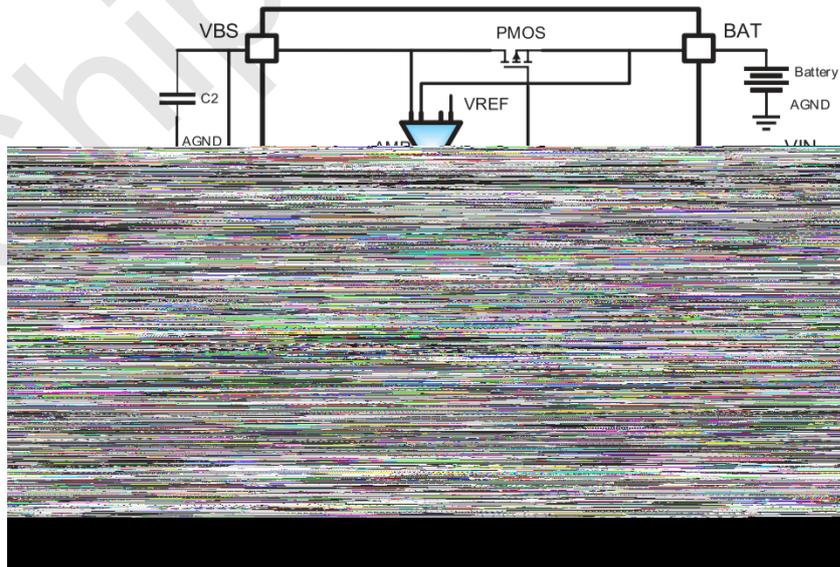
## XYT5081E



XYT5081E  
XXXXX

		/			
1	VIN			5V	
2	AGND				
3	LX		MOS		
4	VBS		BOOST		
5	BAT				
6	ICHG				
7	VSEN		VIN Shutdown VSEN 0.4V	VSEN 1.2V	
8	STAT				
Thermal	PGND				

## XYT5081E



## XYT5081E

VDD		8.0	V
Vi		0.3 ~ VDD+0.3	V
TJ		40 ~ 150	
TSDR	10	260	
TSTG		65 ~ 150	
$\theta_{JA}$	> ESOP8	40	/W
HBM	ESD	$\pm 4$	KV
HMM	ESD	$\pm 4$	KV

1.

2. PCB

XYT5081E

XYT5081E

# XYT5081E

$V_{IN}=5V$   $R_{CHG}=6.8K$   $L=2.2\mu H$

Parameter	Condition	3.60	5.0	7.0	Unit
$V_{IN}$					V
$V_{UVLO}$	$V_{IN}$		3.45		V
$V_{UVLO}$			100		mV
$V_{OVP}$	$V_{IN}$		6.23		V
$V_{OVP}$			500		mV
$I_{DD}$			1		mA
$I_{SD}$	$V_{BAT}$ $V_{IN}$		10.0		
	0.6V $V_{BAT}$ $V_{IN}$		11.0		$\mu A$
	$V_{BAT}$ 0.6V		8.0		
			22.0		
$I_{BAT}$	$V_{BAT}=7.20V$		3.8		$\mu A$
	$V_{IN}=0V$		0.02		
$V_{CV}$		7.15			
$V_{RCH}$	Recharge		200		mV
$V_{TRK}$			4.6		
$V_{SHORT}$					
$V_{TRON}$	BLOCK	$V_{BAT}$			



XYT5081E RUP RDOWN VINT

XYT5081E 3.6V~5.5V 1A 磷酸铁/

VSEN=1.2V

$$V_{INT} = \frac{V_{SEN} * (R_{down} + R_{up})}{R_{down}}$$

600Khz

ICHG

ICHG Rcs

XYT5081E / /

1/20

0V

V<sub>BAT</sub> 1.6V  
1.6V

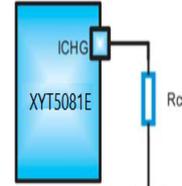
V<sub>BAT</sub> 4.6V 1/10

4.6 V<sub>BAT</sub> 7.2V

7.2V

100mA

7.0V



ICC Rcs

$$I_{CC} = \frac{6800}{R_{cs}}$$

VIN

USB

XYT5081E

USB

100uF

VIN

1uF

V<sub>SHORT</sub>

Block

1/20

22uF

V<sub>SHORT</sub>

1uF

V<sub>BS</sub>

XYT5081E

VSEN

1.2V

40%

VSEN

VSEN

$$L = \left(\frac{V_{IN}}{V_{OUT}}\right)^2 * \frac{V_{OUT} - V_{IN}}{I_{CC} * F_{sw} * 40\%}$$

0.4V

Fsw

ICC

XYT5081E

LED

1.3Hz

XYT5081E

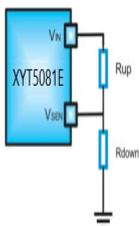
VSEN

VSEN

1.2V

XYT5081E

DRC



2.2uH

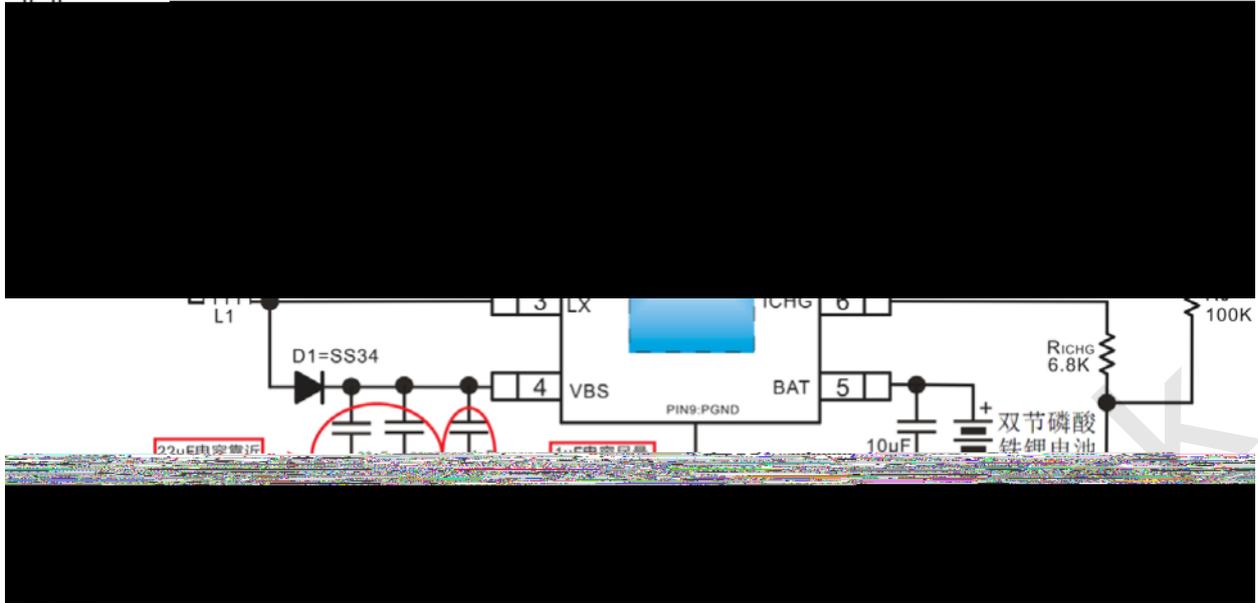
3.5A

CD54



XYT5081E

BOM PCB



BOM

序号	元件名称	型号&规格	单位	用量	位置	备注
1	IC	XYT5081E	PCS	1	U4	

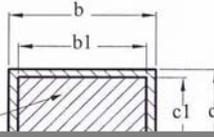
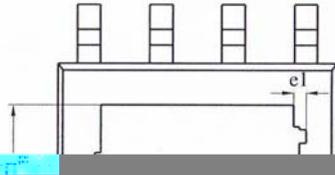


XYT5081E PCB	
1. XYT5081E	
2. BOOST	
3. LX	EMI
4.	
5.	
6.	



XYT5081E

ESOP 8L



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	—	—	1.65

ChipSourceTek