■

XT2059 /

XT2059

USB

USB XT2059

0.1μA

, ,

MOSFET

OVP /

XT2059

XT2059 eSOP-8

■

1.2A

MOSFET z

■

TEMP 1 TEMP NTC TEMP 30%
60% TEMP 30% 60%
PIN GND

ISET 2 1%
1V
$I_{BAT} = (V_{ISET}/R_{ISET})$ 1000
ISET 3μA ISET 1.21V
25μA 1/2VDD
1.5 mA ISET

GND 3 ,EXPOSED 3

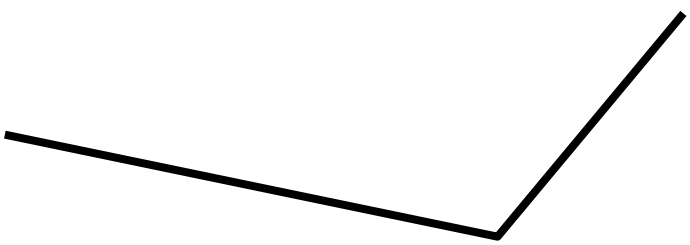
VIN 4 VCC 2.3V 6.5V 1μF BAT
VCC 30 mV XT2059 BAT 2 μA

BAT 5 BAT
BAT

DONE 6 DONE DONE

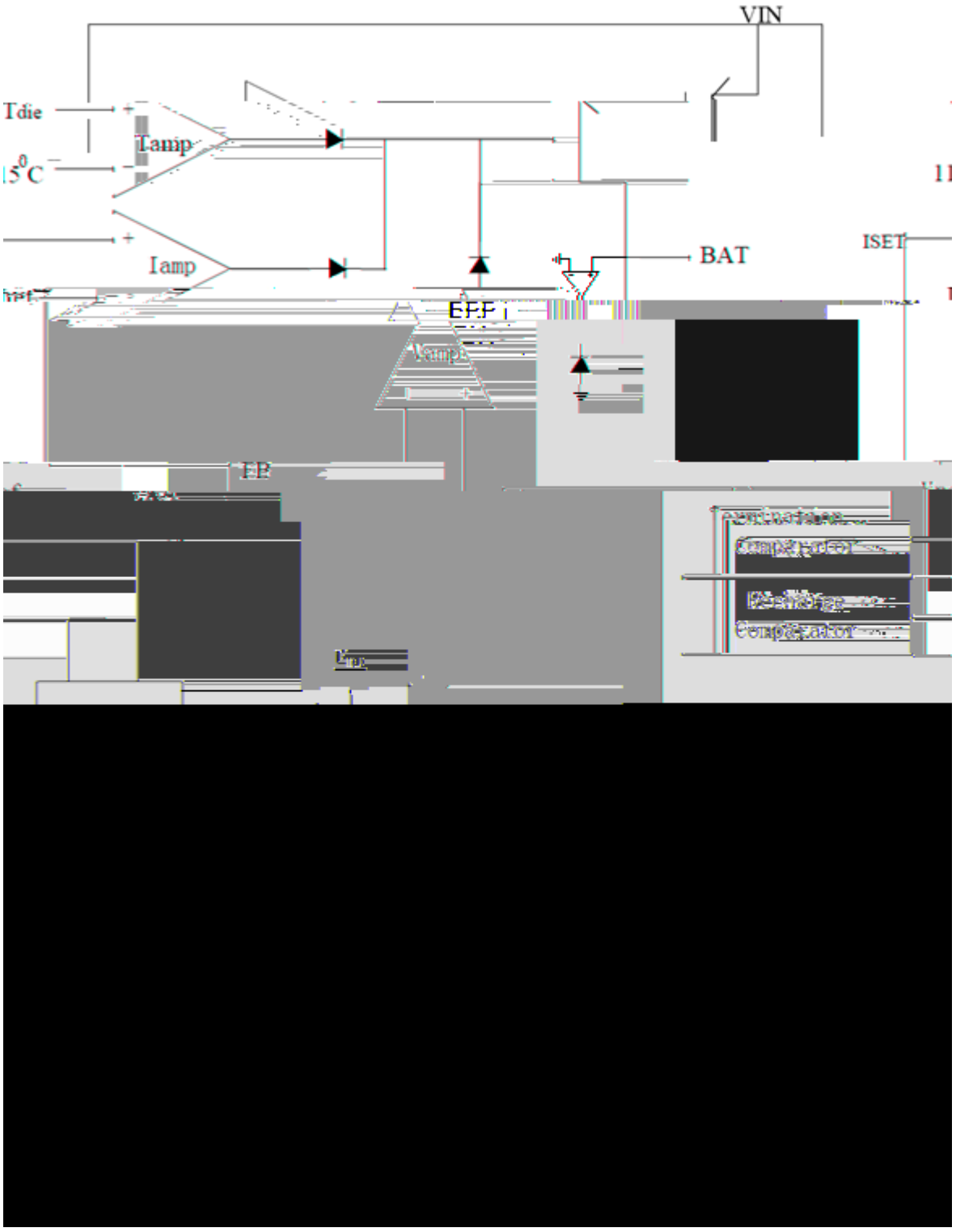
■

	V_{cc}	V_{SS}-0.3 V_{SS}+8.2	V
ISET	Vprog	V_{SS}-0.3 V_{cc}+0.3	
BAT	Vbat	Vss-0.3 6	
DONE	Vdone	V_{SS}-0.3 V_{SS}+7	
CHAG	Vchrg	V_{SS}-0.3 V_{SS}+7	
BAT	Ibat	1500	mA
ISET	Iprog	1500	µA
	Topa	-40 +85	°C
	Tstr	-65 +125	



Ötf 12.00126u 0Ã#

■


VIN
Tdie
Tamp
Iamp
BAT
ISET
EP

■

(Ta=25 4.2V)

	Vcc		2.3		8.0	V
	Icc	Charge mode,Riset=2K		200	2000	μA
		Standby mode		200	500	μA
		Shutdown mode(Riset not connected,Vcc<Vbat or Vcc<Vuv)		25	90	μA
	VFB	0 TA 85 ,IBAT=40mA	1.212	1.225	1.238	V
BAT	Ibat	Riset=10k,Current mode	90	100	110	mA
		Riset=1k,Current mode	900	1000	1100	mA
		Standby mode,Vbat=4.2V	0	-2.5	-15	μA
		Shutdown mode			0.1	μA
		Sleep mode,Vcc=0V			0.1	μA

$$R2 \quad \frac{R_{TL}R_{TH}(K2 \quad K1)}{R_{TL}(K1 \quad K1K2) \quad R_{TH}(K2 \quad K1K2)}$$

PTC RTH RTL

$$R1 \quad \frac{R_{TL}R_{TH}(K2 \quad K1)}{(R_{TH} \quad R_{TL})K1K2}$$

$$R2 \quad \frac{R_{TL}R_{TH}(K2 \quad K1)}{R_{TH}(K1 \quad K1K2) \quad R_{TL}(K2 \quad K1K2)}$$

V_{IN} R1 R2 R_{TH} R_{TL} R_{TH} R_{TL}

R2 R1 R1

XT2059 CHAG DONE CHAG

CHAG DONE DONE

0.15 CHAG DONE

BAT

BAT 80mv CHAG

BAT 4.7μF 2Hz

CHAG DONE

CHRG				
DONE				

1 CHAG 4.7μF

2 Iset Vin<Vbat,Vin<3.8V,D

XT2059 VIN BAT BAT

XT2059 SOP8/PP 1.2W 1.2A 5V

0.5 1W 0.5*1.2=0.6V,XT2059 4.4V

VIN-VBAT *1.2<1.2W VBAT>3.4V 3.4V 1.2A 3.4V XT2059

XT2059 PCB EXPOSED PAD EXPOSED PAD GND

