



500mA

- 500mA
- MOSFET
- /
- ± 1% 4.2V
- 1/10
- 25μA
- 2.9V
- SOT23-5L

- PDA MP3
-

CST4054B

CST4054B

USB

MOSFET

4.2V

1/10

CST4054B

USB

CST4054B

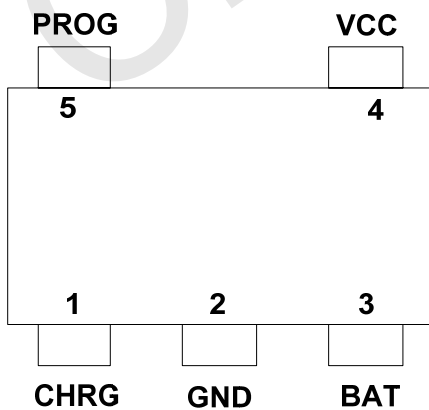
1uA

CST4054B

25μA

CST4054B

IC

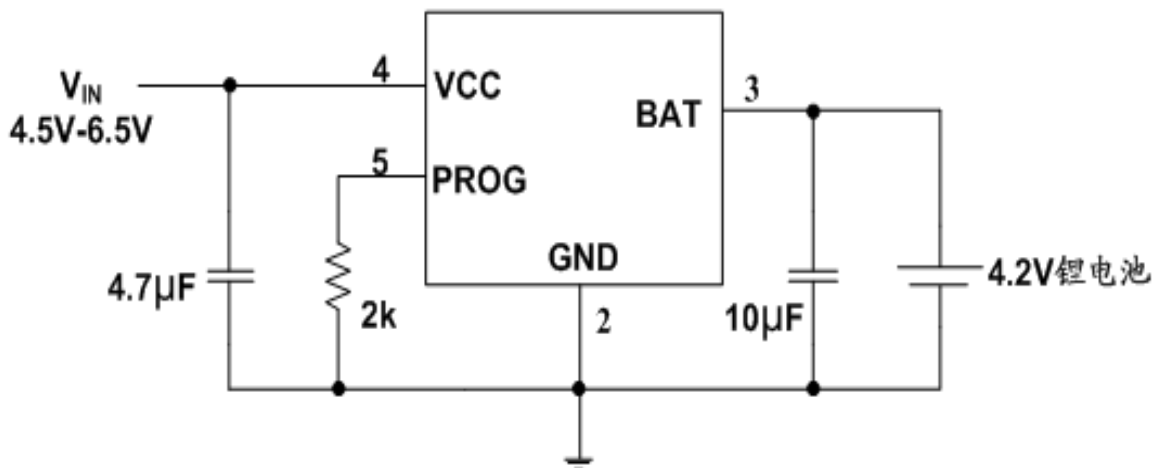


1	CHRG	
2	GND	
3	BAT	
4	VCC	
5	PROG	



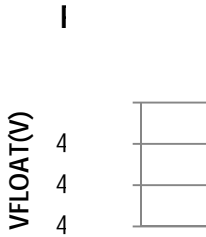
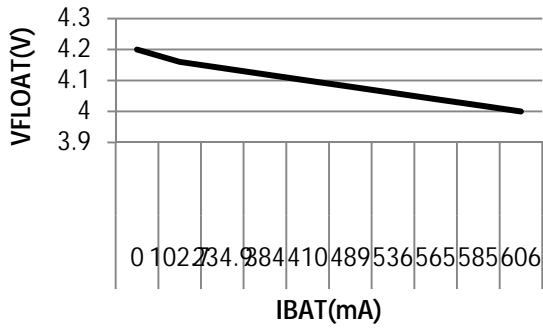
500mA

CHRG	1			CHRG	N	MOSFET	
		CHRG	CST4054B	CHRG		BAT	
		1μ F		LED			
GND	2						
BAT	3				4.2V		
		VBAT	ESD	GND	BAT	0.7mA	
VCC	4			VCC	4.25V	6.5V	
		BAT	VCC	30nV	CST4054B	BAT	2μ A
PRCG	5				1%	PRCG	
				1V			
				$I_{BAT} = (V_{PRCG}/R_{PRCG}) \times 1000$	PRCG		
		2μ A	PRCG	1.21V			
			25μ A	2.4V		1.5	
nA		PRCG					

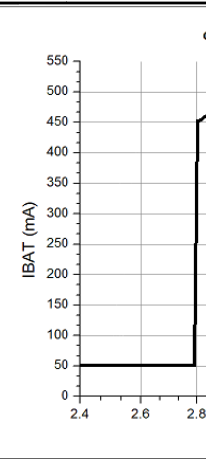
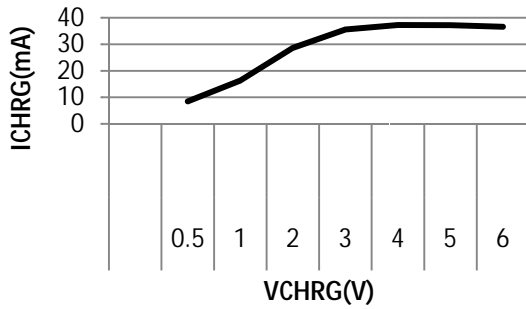


.Typical Application Circuit

Regulated Output (FIOAT) Voltage VS Charge Current

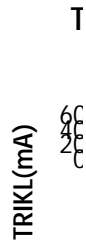
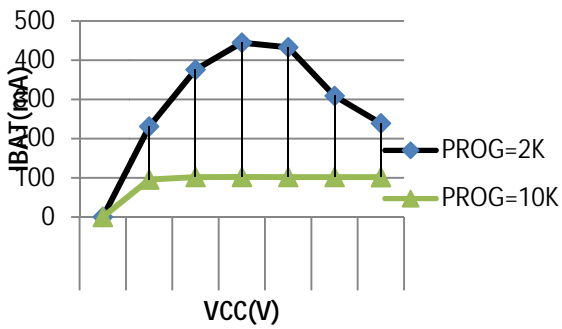


CHRG Pin I-V Curve (Strong Pull-Down State)



I - V

Charge Current VS Supply Voltage



V _{CC}			4.20	5.00	6.50	V
I _{CC}		R _{PROG} =10KΩ		300	500	μA
				50	100	μA

R_{PROG}
V_{CC}<V_{BAT} V_{CC}<V_{UV}



500mA

(1)(2)

V_{CC}		$V_{SS}-0.3\sim V_{SS}+7$	V
V_{PROG}	PROG	$V_{SS}-0.3\sim V_{SS}+0.3$	V
V_{BAT}	BAT	$V_{SS}-0.3\sim 7$	V
V_{CHRG}	CHRG	$V_{SS}-0.3\sim V_{SS}+10$	V
P_{DMAX}		250	mW
I_{BAT}	BAT	500	mA
I_{PROG}	PROG	800	μA
V_{ESD}	ESD	4	kV
Latch-Up	Pin	400	mA
T_{OPA}		-40~+85	
T_{STR}		-65~+125	

1

2

CST4054B

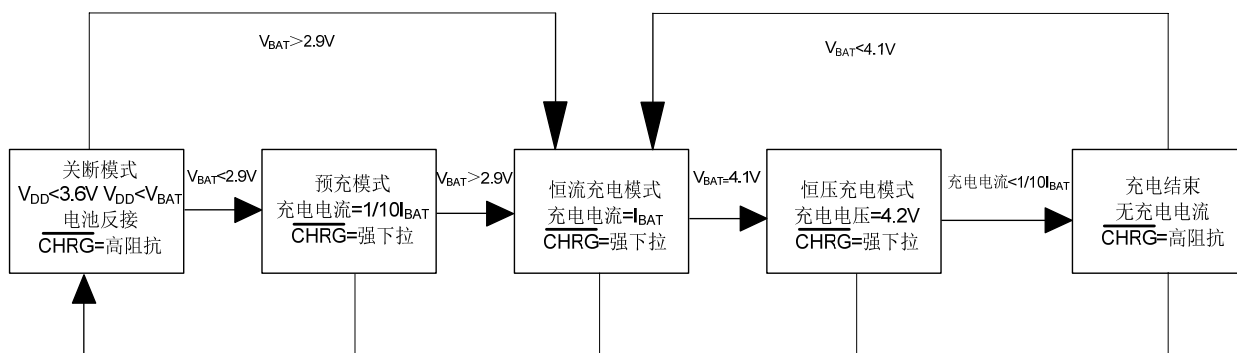
/

500mA

PCB

P

MOSFET



Vcc

UVLO

PROG

1%

BAT

2.9V

CST4054B

1/10

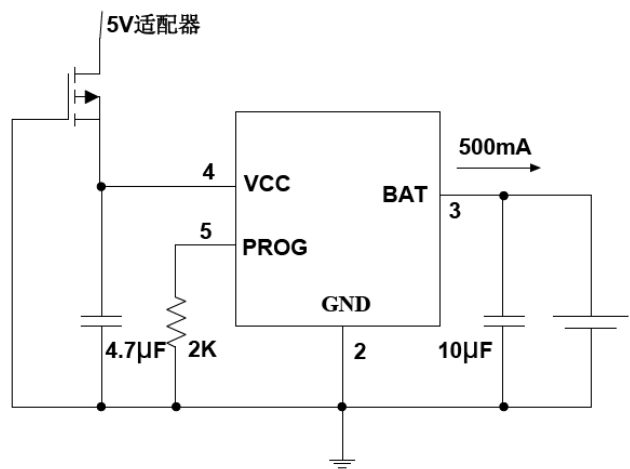
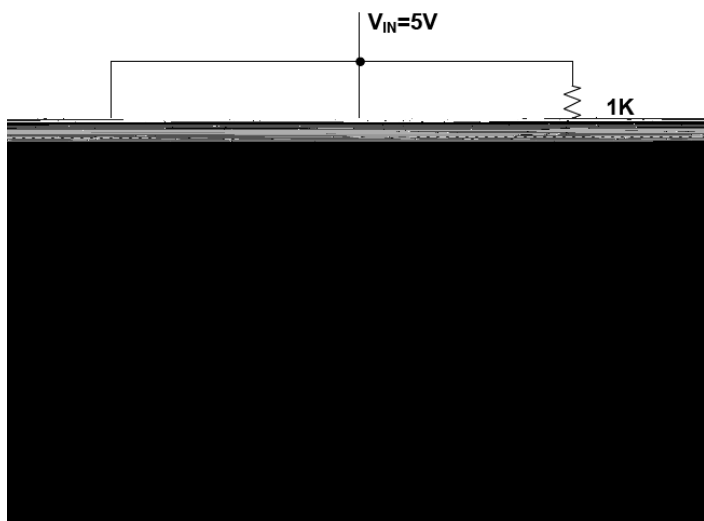
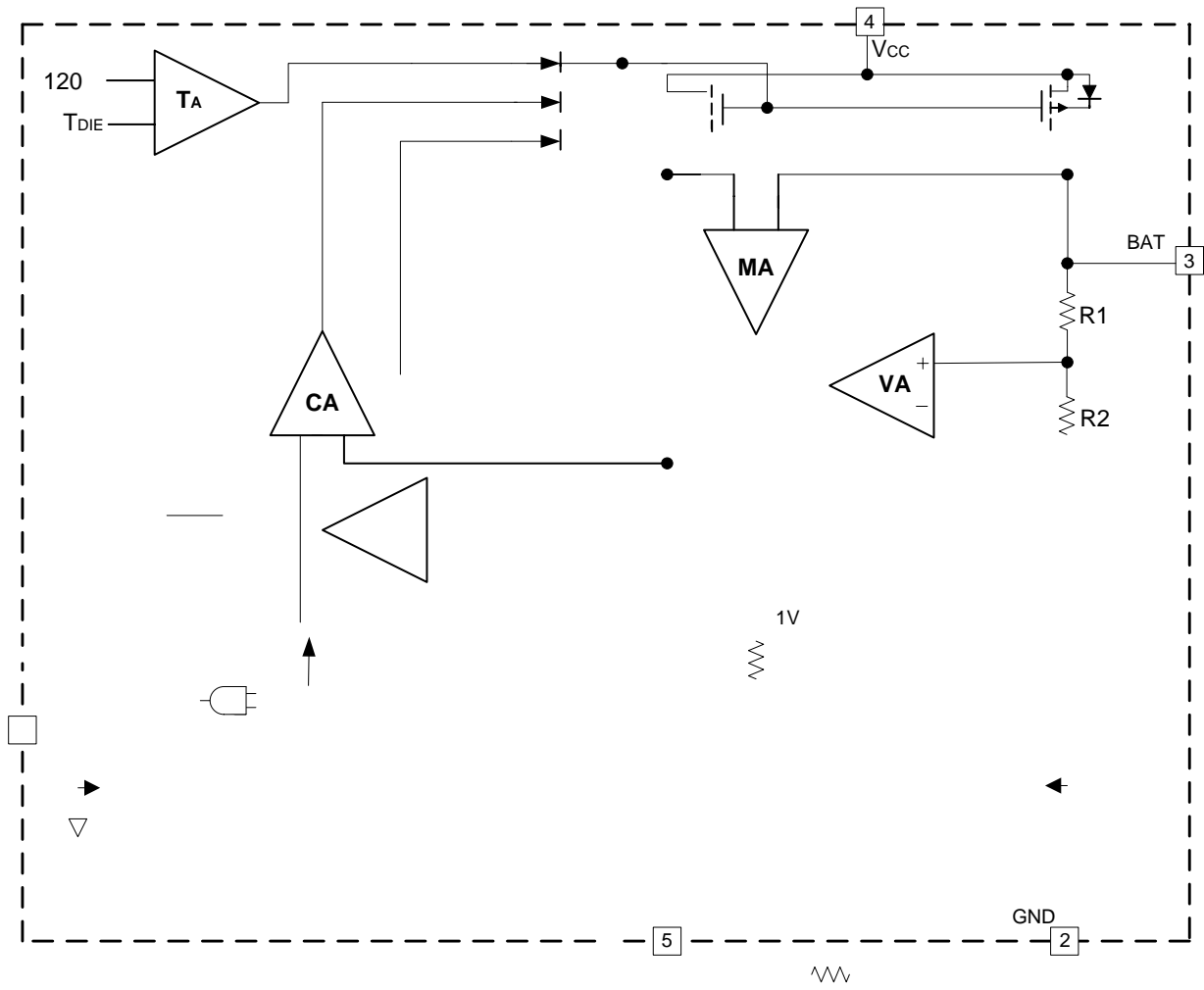
BAT

2.9V

BAT

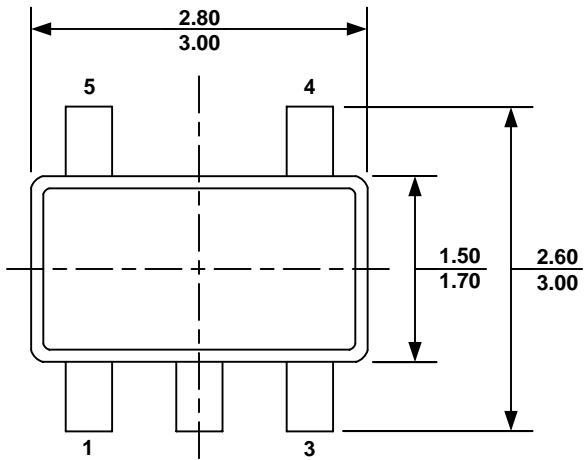
4.2V

1/10

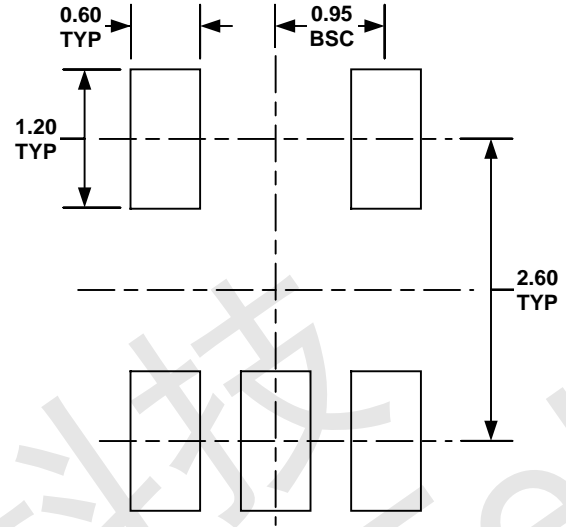




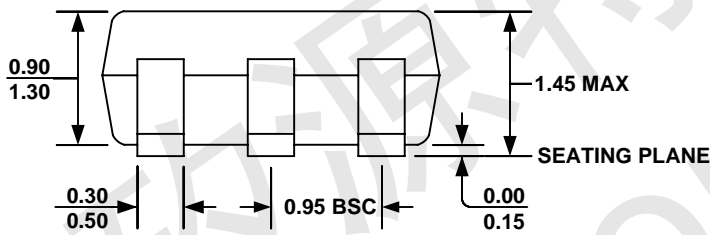
PACKAGE OUTLINE DRAWING FOR 5-SOT23 MF-PO-D-0013 revision 1.0



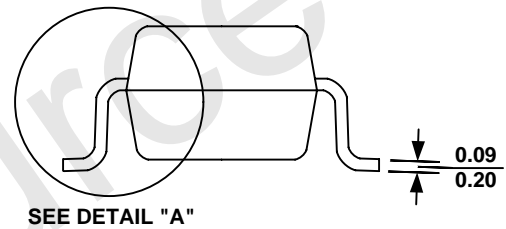
TOP VIEW



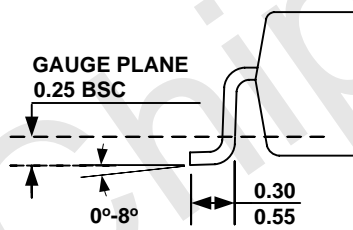
RECOMMENDED LAND PATTERN



FRONT VIEW



SIDE VIEW



DETAIL "A"

NOTE:

- 1) ALL DIMENSIONS ARE IN MILLIMETERS.
- 2) PACKAGE LENGTH DOES NOT INCLUDE MOLD FLASH, PROTRUSION OR GATE BURR.
- 3) PACKAGE WIDTH DOES NOT INCLUDE INTERLEAD FLASH OR PROTRUSION.
- 4) LEAD COPLANARITY (BOTTOM OF LEADS AFTER FORMING) SHALL BE 0.10 MILLIMETERS MAX.
- 5) DRAWING CONFORMS TO JEDEC MO-178, VARIATION AA.
- 6) DRAWING IS NOT TO SCALE.