产品描述

XC6206P362MR是具有高纹波抑制率、低功耗、低压差，具有过流和短路保护的CMOS降压型电压稳压器。这些器件具有很低的静态偏置电流（6.0μA Typ.），它们能在输入、输出电压差极小的情况下提供300mA的输出电流，并且仍能保持良好的调整率。由于输入输出间的电压差很小和静态偏置电流很小，这些器件特别适用于希望延长电池寿命的电池供电类产品，如计算机、消费类产品和工业设备等。

SOT-23

管脚编号	管脚名	功能描述
1	VSS	接地
2	VOUT	输出
3	VIN	电源输入

产品特点

- 最大输出电流：500mA
- 压差电压：120mV@50mA
- 最大工作电压：6.5V
- 输出电压范围：3.6V
- 高精度：2%
- 极低的静态工作电流：6.5μA (典型值)
- 内置过流和短路保护电路
- 工作温度范围：-25℃~ 85℃

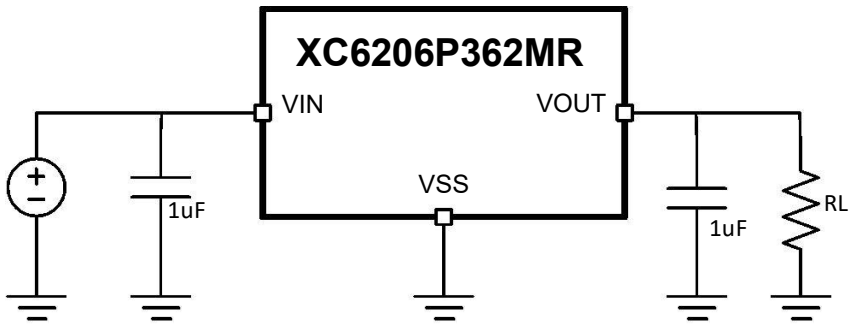
应用领域

- 电池供电系统
- 无绳电话设备
- 无线控制系统
- 便携/手掌式计算机
- 便携式消费类设备
- 便携式仪器
- 汽车电子设备
- 电压基准源

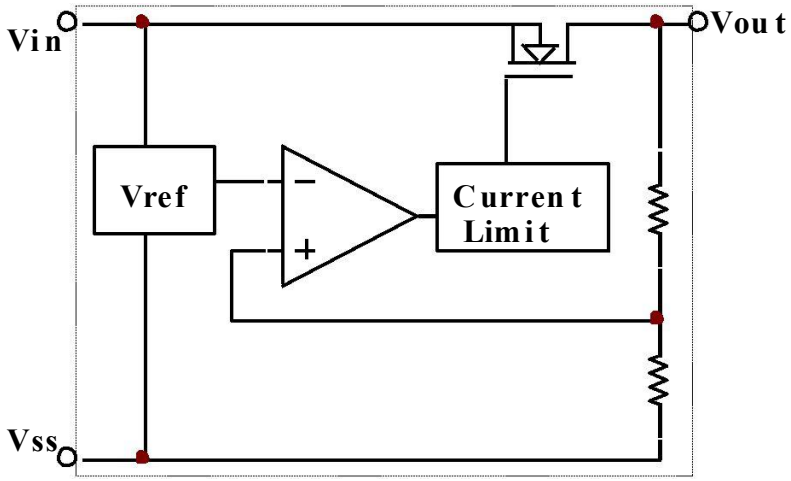
包装标识与订购信息

产品型号	封装规格	丝印	数量信息**(PCS)**
XC6206P362MR	SOT-23	665K	3000

典型应用



功能框图



极限参数

(注意：超过这些限制可能会损坏器件。长期暴露在绝对最大额定条件下会影响器件的可靠性。)

项目	符号	极限值	单位
输入电压	V_{IN}	6.5	V
输出电流	I_{OUT}	500	mA
输出电压	V_{OUT}	VSS-0.3~VIN+0.3	V
功　耗	P_d	0.30	W
工作温度	T_{opr}	-25~+85	℃
存储温度	T_{stg}	-55~+125	℃

电学参数

特性	符号	条件	最小值	典型值	最大值	单位
输出电压	$V_{OUT}(E)$	I_{OUT}=1mA，V_{IN}= $V_{OUT}(T)$+1V	3.528	3.6	3.672	V
最大输出电流	I_{OUT} (max)	V_{IN}=$V_{OUT}(T)$+1V	100			mA
跌落压差	Vdrop	I_{OUT} =50mA		120	200	mV
静态电流	I_{SS}	V_{IN}= $V_{OUT}(T)$+1V		7		μA
负载稳定度	ΔV_{OUT}	V_{IN}= $V_{OUT}(T)$+1V，1mA≤I_{OUT}≤80mA		20		mV
输入稳定度	$\Delta V_{OUT}/(\Delta V_{IN} \bullet V_{OUT})$	I_{OUT} =1mA， $V_{OUT}(T)$+0.5V ≤V_{IN}≤5.5V		0.1	0.2	%/V
输出电压温度系数	$\Delta V_{OUT}/(\Delta Ta \bullet V_{OUT})$	V_{IN} = V_{OUT} (T)+1V，I_{OUT} =10mA -40℃≤Ta≤85℃		±100		ppm/℃
输入电压	V_{IN}		1.8	--	8.0	V
纹波抑制比	PSRR	V_{IN}= [$V_{OUT}(T)$+1]V +1Vp-pAC I_{OUT} =10mA, f=1kHz		40		dB
短路电流	Ishort	V_{IN}= $V_{OUT}(T)$+1.5V ， V_{OUT}=Vss		30		mA
过流保护电流	Ilimt	V_{IN}= $V_{OUT}(T)$+1.5V		380		mA

注 ：

1、 V_{OUT} (T)：规定的输出电压。

2、V_{OUT} (E) ：有效输出电压 (即当I_{OUT}保持一定数值，V_{IN} = (V_{OUT} (T)+1.0V)时的输出电压)。

3、I_{OUT} (max)：V_{IN}=$V_{OUT}(T)$+1V，缓慢增加输出电流，当输出电压≤$V_{OUT}(E)$*95%时的电流值。

4、Vdrop= V_{IN1} - V_{OUT} (E)s ：V_{IN1}=逐渐减小输入电压， 当输出电压降为 V_{OUT} (E)1 的 98%时的输入电压。

V_{OUT} (E)s= V_{OUT} (E)*98%

V_{OUT} (E)1=当V_{IN}= $V_{OUT}(T)$+1V ， Iout=某一数值时的输出电压值。

测试电路

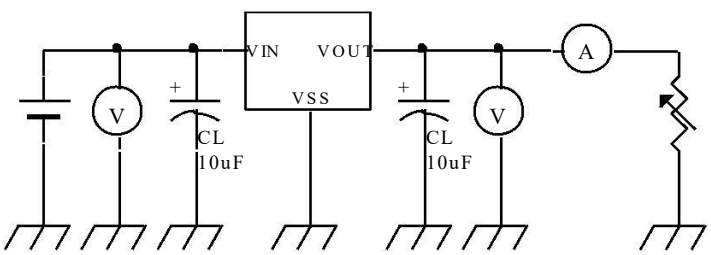


图 1

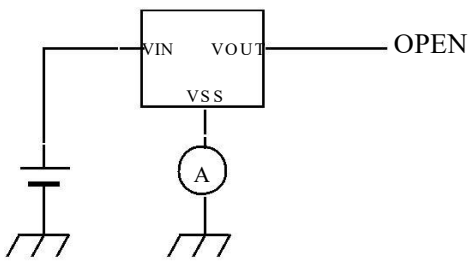
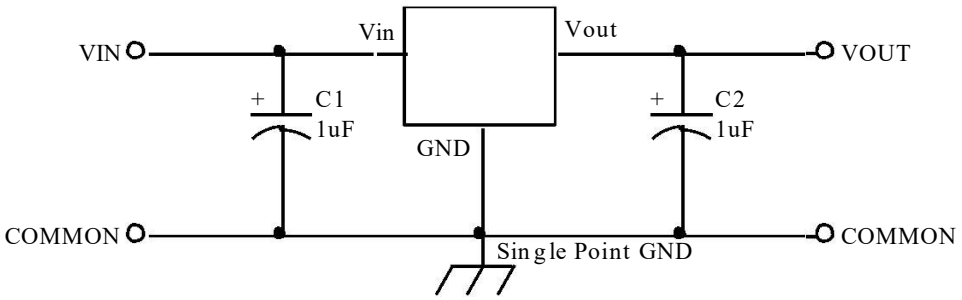


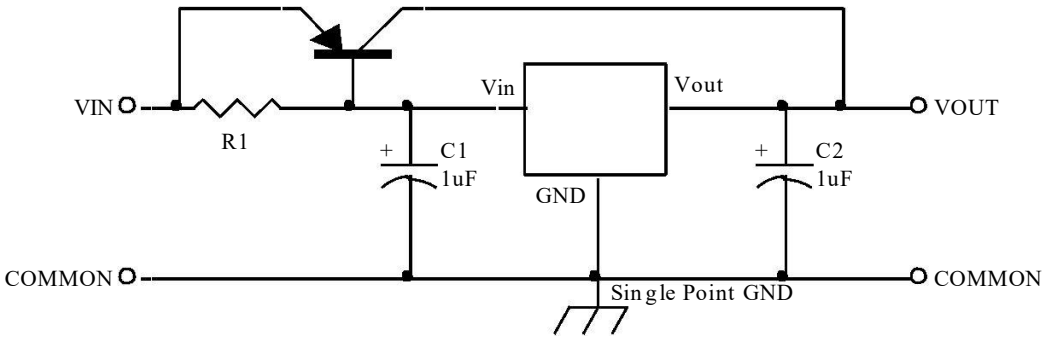
图 2

应用电路

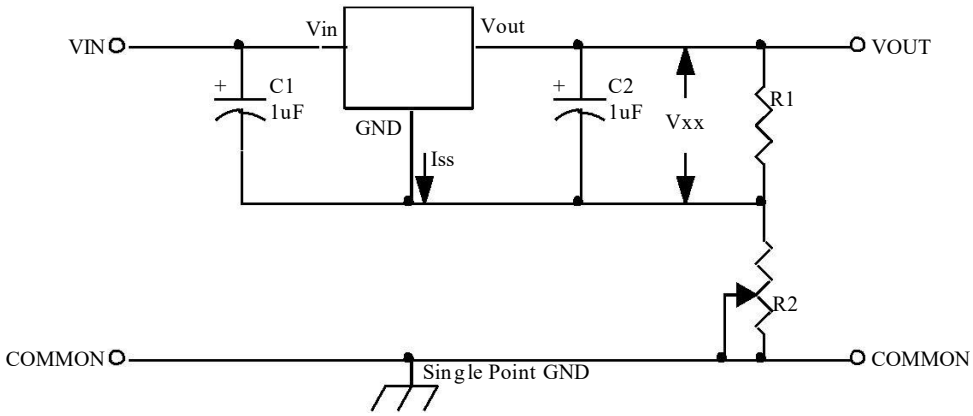
1、基本电路



2、大输出电流正电压型电压调整器

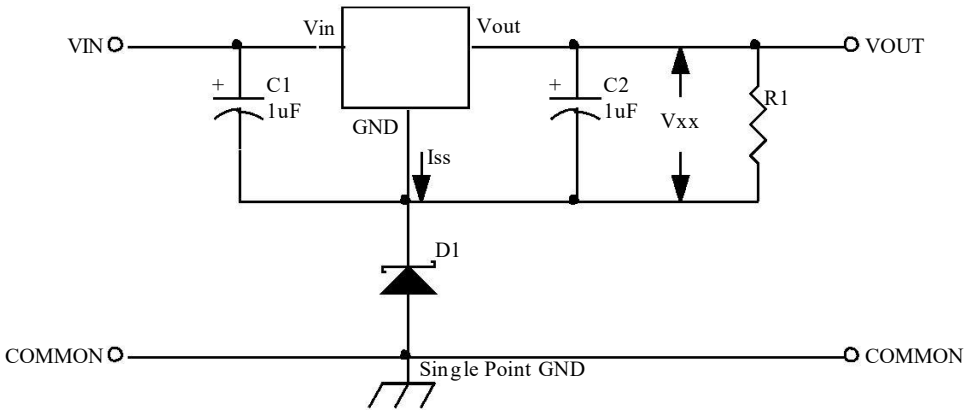


3、提高输出电压值电路（1）



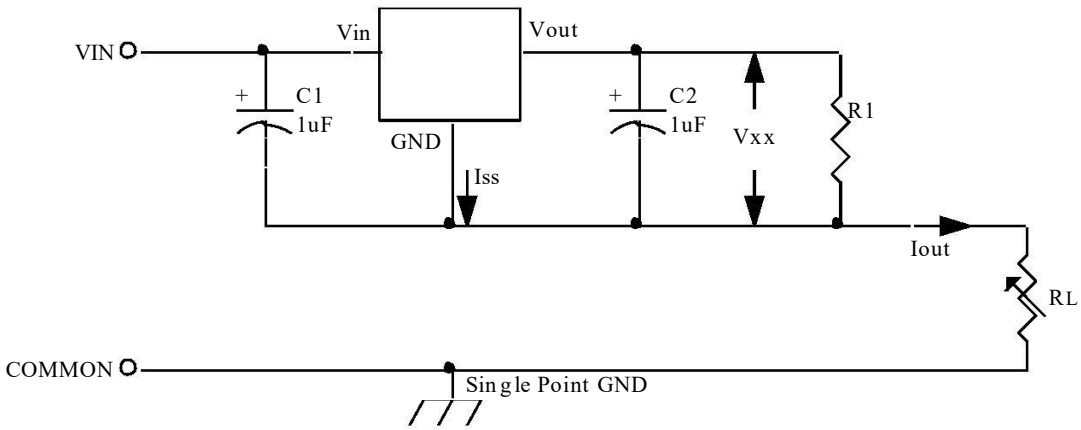
$$Vout=Vxx(1+R2/R1)+IssR2$$

4、提高输出电压电路（2）



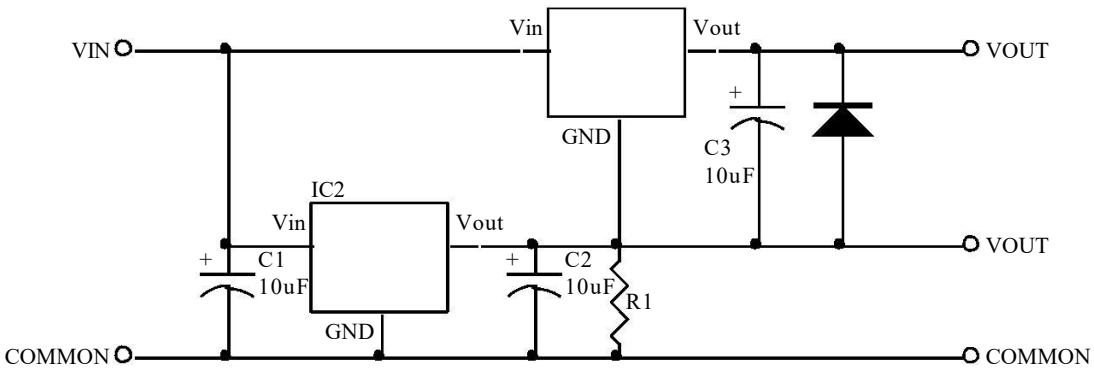
$$Vout=Vxx+V_{D1}$$

5、恒流调整器



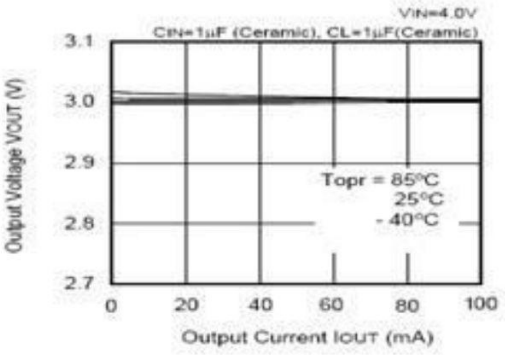
$$Iout=Vxx/R_A+Iss$$

6、双输出

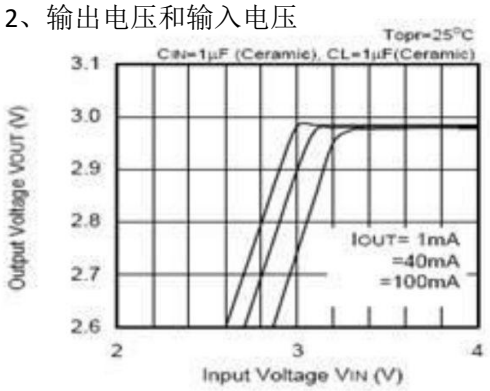


特征曲线

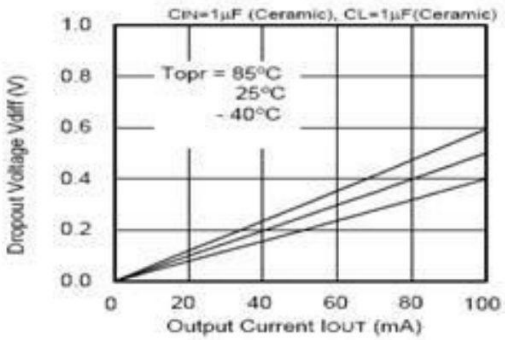
1、输出电压--输出电流（负载电流增加时）



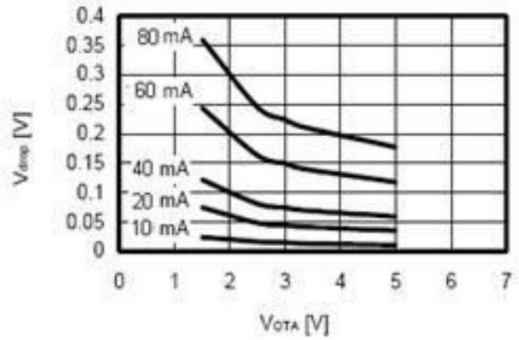
2、输出电压和输入电压



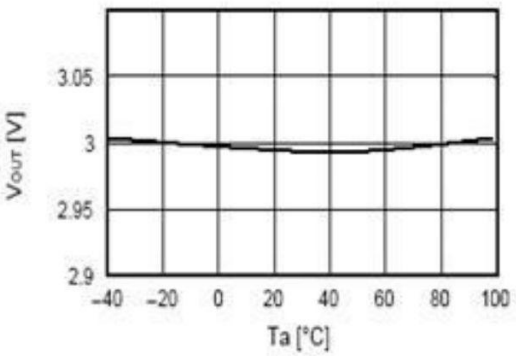
3、Dropout 电压和输出电流



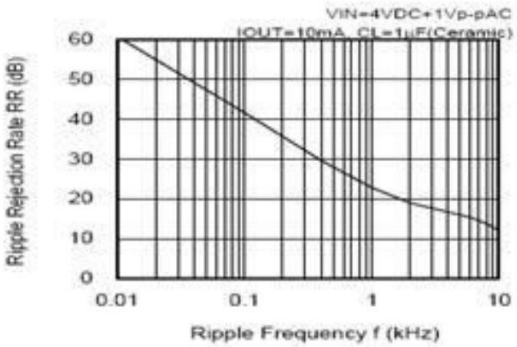
4、Dropout 电压和输出电压



5、输出电压和温度

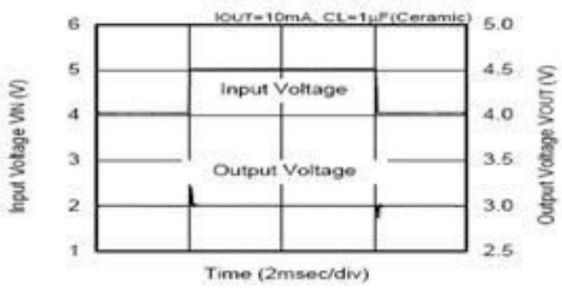


6、纹波抑制

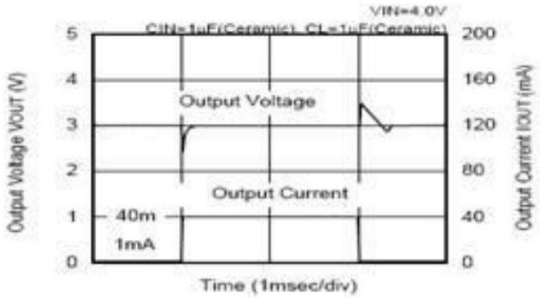


7、瞬态响应

输入过渡响应特性

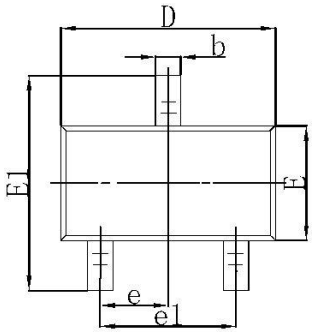


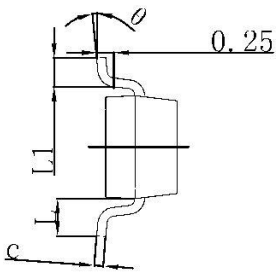
负载过渡输入响应特性

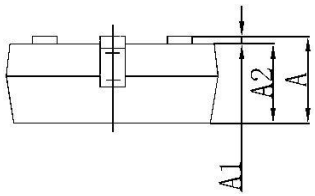


封装信息

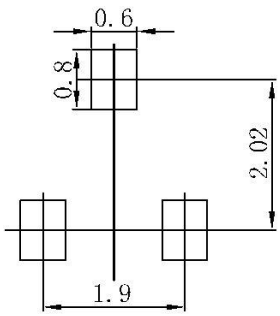
SOT-23







Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

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