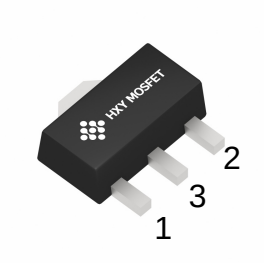
产品描述

XC6206P332PR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（8.0μA Typ.），它们能在输入、输出电压差极小的情况下提供500mA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-89

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：160mV@50mA
- 最大工作电压：7V
- 输出电压范围：3.3V
- 高精度：3%
- 极低的静态工作电流：8μA (典型值)
- 内置过流和短路保护电路
- 工作温度范围：-40℃~ 85℃

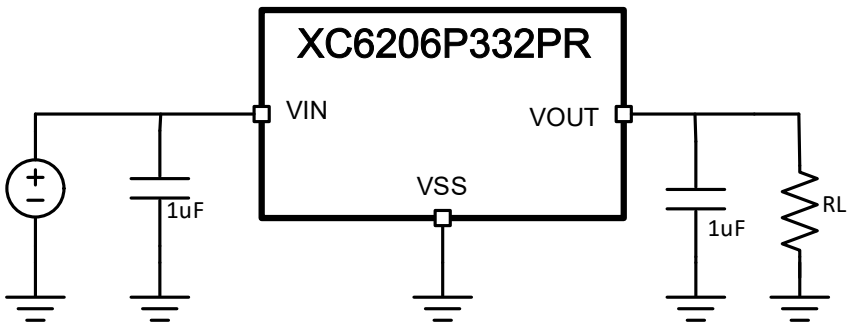
应用领域

- 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

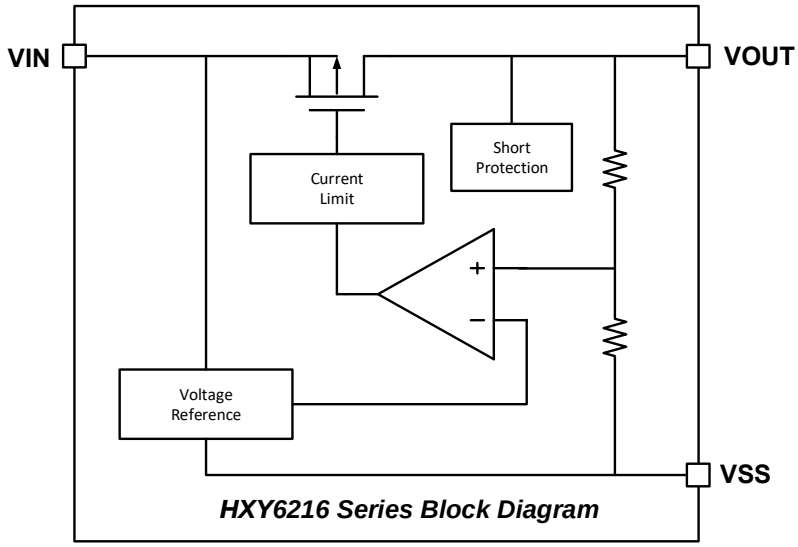
应包装标识与订购信息

产品型号	封装规格	丝印	数量信息(PCS)
XC6206P332PR	SOT-89	662K	1000

典型应用



功能框图



HXY6216 Series Block Diagram

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}	7	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	0.50	W
工作温度	T_{opr}	-25~+80	℃
存储温度	T_{stg}	-40~+125	℃

电学参数

(*Cin=Cout=10uF,Ta=25°C*除特别指定)

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		$V_{OUT}(T)$ *0.98	$V_{OUT}(T)$	$V_{OUT}(T)$* 1.02	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	1.5V≤$V_{OUT}(T)$≤2.5V		200	280	mV
			2.6V≤$V_{OUT}(T)$≤3.3V		160	240	
			3.4V≤$V_{OUT}(T)$≤5.5V		120	200	
静态电流	I_{SS}	V_{IN}= $V_{OUT}(T)$+1V			8		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。

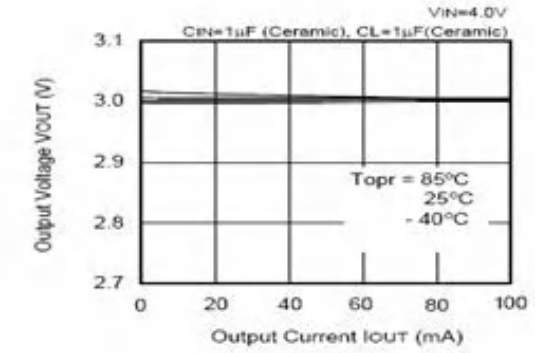
4、Vdrop= V_{IN1} - V_{OUT} (E)s ：V_{IN1}=逐渐减小输入电压， 当输出电压降为 V_{OUT} (E)1 的 98%时的输入电压。

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

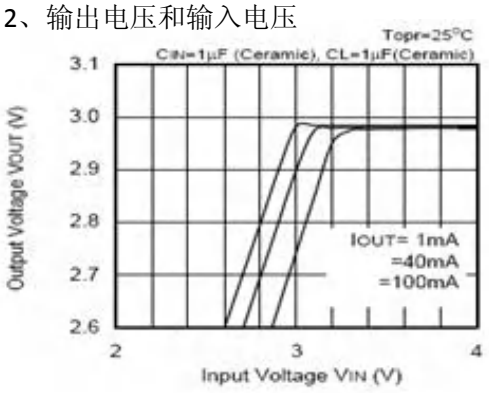
V_{OUT} (E)1=当 V_{IN}= $V_{OUT}(T)$+1V , Iout=某一数值时的输出电压值。

特征曲线

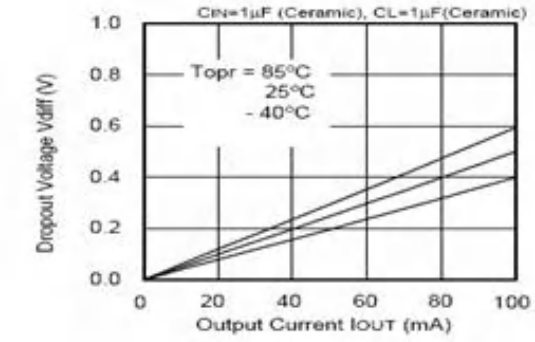
1、输出电压--输出电流（负载电流增加时）



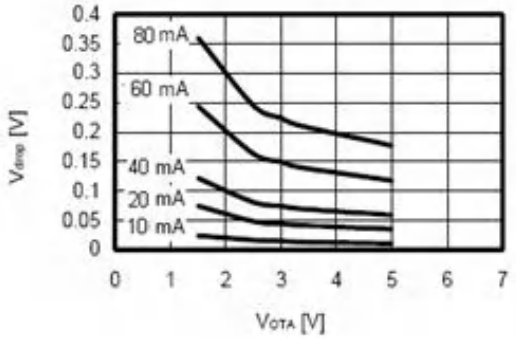
2、输出电压和输入电压



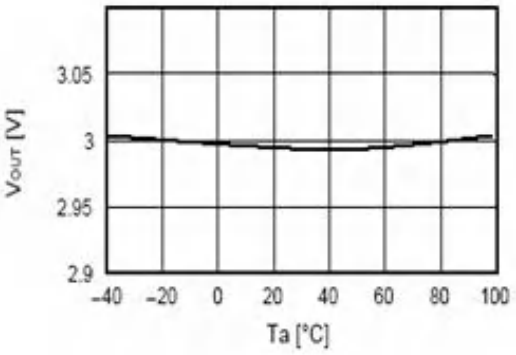
3、Dropout 电压和输出电流



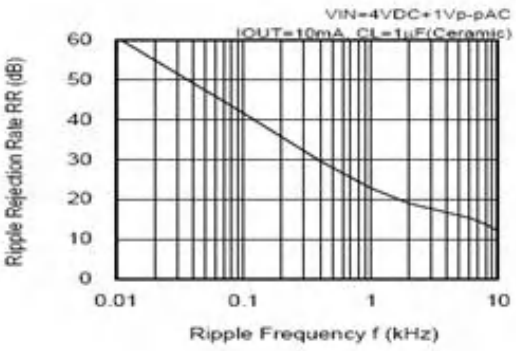
4、Dropout 电压和输出电压



5、输出电压和温度

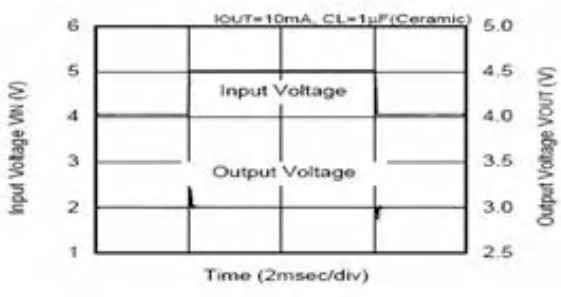


6、纹波抑制

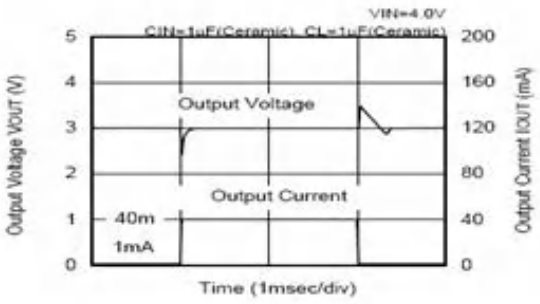


7、瞬态响应

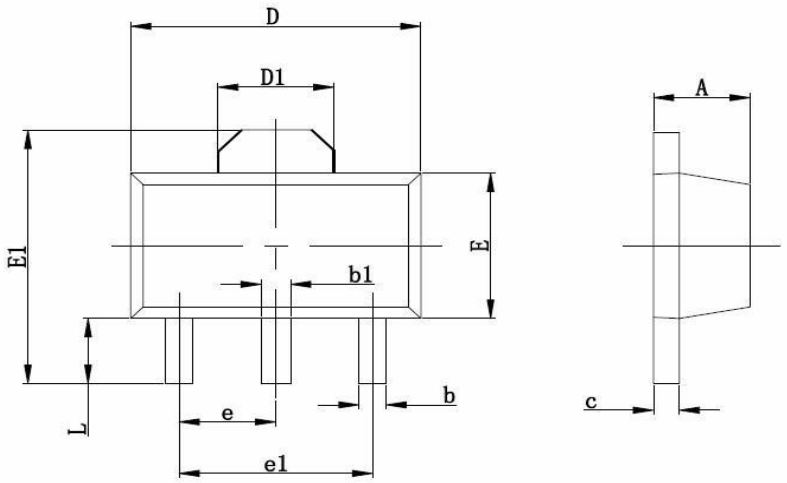
输入过渡响应特性



负载过渡输入响应特性



SOT-89 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.350	0.520	0.013	0.197
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF		0.061 REF	
E	2.350	2.550	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP		0.060TYP	
e1	3.000 TYP		0.118TYP	
L	0.900	1.100	0.035	0.047

Attention

■ Any and all HUA XUAN YANG ELECTRONICS products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your HUA XUAN YANG ELECTRONICS representative nearest you before using any HUA XUAN YANG ELECTRONICS products described or contained herein in such applications.

■ HUA XUAN YANG ELECTRONICS assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all HUA XUAN YANG ELECTRONICS products described or contained herein.

■ Specifications of any and all HUA XUAN YANG ELECTRONICS products described or contained herein stipulate the performance, characteristics, and functions of the described products in the independent state, and are not guarantees of the performance, characteristics, and functions of the described products as mounted in the customer's products or equipment. To verify symptoms and states that cannot be evaluated in an independent device, the customer should always evaluate and test devices mounted in the customer's products or equipment.

■ HUA XUAN YANG ELECTRONICS CO.,LTD. strives to supply high-quality high-reliability products. However, any and all semiconductor products fail with some probability. It is possible that these probabilistic failures could
give rise to accidents or events that could endanger human lives, that could give rise to smoke or fire, or that could cause damage to other property. When designing equipment, adopt safety measures so that these kinds of accidents or events cannot occur. Such measures include but are not limited to protective circuits and error prevention circuits for safe design, redundant design, and structural design.

■ In the event that any or all HUA XUAN YANG ELECTRONICS products(including technical data, services) described or contained herein are controlled under any of applicable local export control laws and regulations, such products must not be exported without obtaining the export license from the authorities concerned in accordance with the above law.

■ Information (including circuit diagrams and circuit parameters) herein is for example only ; it is not guaranteed for volume production. HUA XUAN YANG ELECTRONICS believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

■ Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. When designing equipment, refer to the "Delivery Specification" for the HUA XUAN YANG ELECTRONICS product that you intend to use.