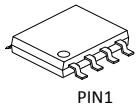
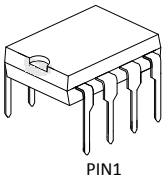
概述：

LM358P是由两个独立的高增益运算放大器组成。可以是单电源工作，也可以是双电源工作，电源的功耗电流与电源电压大小无关。应用范围包括音频放大器、工业控制、DC 增益部件和所有常规运算放大电路。

采用 DIP8 或 SOP8 封装形式。



SOP-8

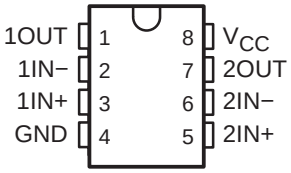


DIP-8

主要特点：

- ✧ 可单电源或双电源工作 。
- ✧ 包含两个运算放大器。
- ✧ 逻辑电路匹配。
- ✧ 功耗小。
- ✧ 频率范围宽 。

功能框图和管脚排列图



极限值（绝对最大额定值，若无其它规定，Tamb=25℃）

参 数 名 称	数 值	单 位
电源电压	24 或 ±12	V
差分输入电压	24	V
输入电压	-0.3 ～ 24	V
输出端对地短路电流（1 放大器）（V≤15V、Ta=25℃）	持续	
输入电流（VIN<-0.3V）	50	mA
工作环境温度	0 ～ 70	℃
贮存温度	-65 ～ 150	℃

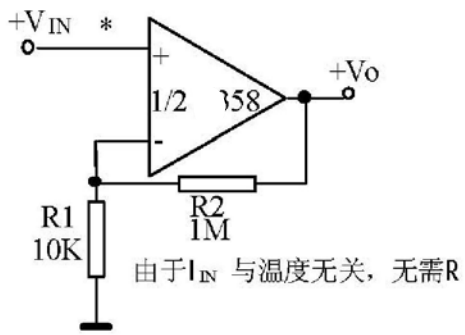
+

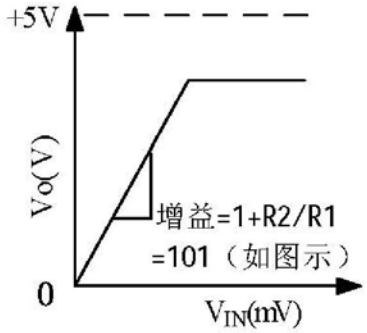
电特性 （若无其它规定，V =5.0V）

特 性		测试条件		规 范 值			单位
				最小	典 型	最大	
输入失调电压		Ta=25℃			2	7	mV
输入偏流		Ta=25℃，IIN(+)或 IIN（-），VCM=0V			45	150	nA
输入失调电流		Ta=25℃，IIN(+) - IIN（-），VCM=0V			3	30	nA
输入共模电压范围		Ta=25℃，V^+=24V		0		V^+-1.5	V
电源电流		在整个温度范围上，RL=∞在所有运算放大器上，	V^+=24V		1	2	mA
			V^+=5V		0.5	1.2	
大信号电压增益		V^+=15V，Ta=25℃，RL≥2kΩ（对于 Vo=1~11V）		50	100		V/mV
共模抑制比		DC，Ta=25℃，VCM=0~V^+-1.5V		65	90		dB
电源抑制比		DC，Ta=25℃，V^+=5~24V		65	100		dB
放大器之间的耦合系数		Ta=25℃，f=1~20kHz（所有的输入）			-120		dB
输出源电流		VIN(+)=1V,VIN(-)=0V,V^+=15V,Vo=2V,Ta=25℃		20	40		mA
输出吸电流		VIN(-)=1V,VIN(+)=0V,V^+=15V,Vo=2V,Ta=25℃		10	20		mA
		VIN(-)=1V,VIN(+)=0V,V^+=15V,Vo=200mV,Ta=25℃		12	50		μA
对地短路电流		V^+=15V， Ta=25℃			40	60	mA
输入失调电压						7	mV
输入失调电压漂移		Rs=0Ω			7		μV/℃
输入失调电流		IIN(+) - IIN（-）				100	nA
输入失调电流漂移		Rs=0Ω			10		pA/℃
输入偏置电流		IIN(+)或 IIN（-）			40	300	nA
输入共模电压范围		V^+=24V		0		V^+-2	V
大信号电压增益		V^+=15V，（Vo=1~11V）， RL≥2kΩ		25			V/mV
输出电压摆幅	VOH	V^+=24V	RL=2kΩ	20			V
			RL=10kΩ	21	22		V
	VOL	V^+=5V，RL=10kΩ			5	20	mV
输出电流		VIN(+)=1V，VIN(-)=0V，V^+=15V，Vo=2V		10	20		mA
		VIN(-)=1V，VIN(+)=0V，V^+=15V，Vo=2V		5	8		mA

典型应用

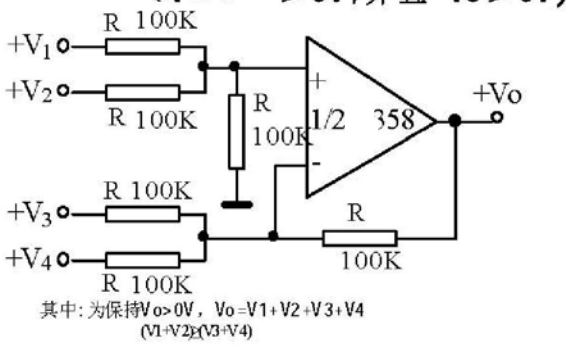
同相直流增益（0V输入=0V输出）



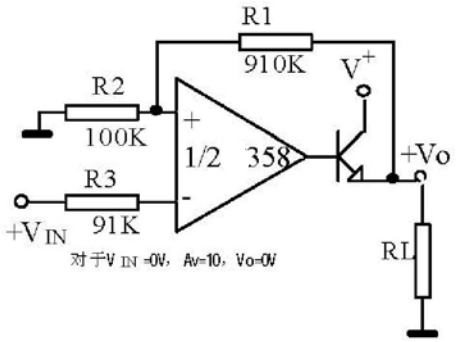


直流求和放大器

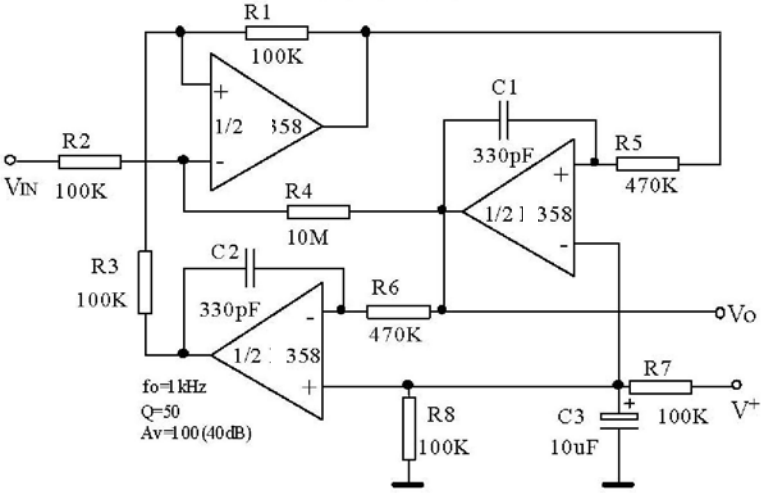
（VIN'S ≥0V，并且 Vo≥0V）



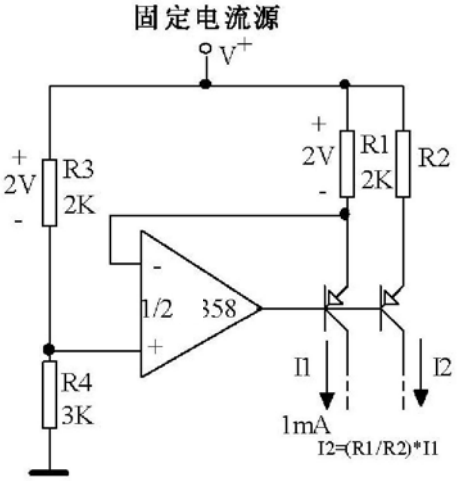
功率放大器



RC 有源带通滤波器

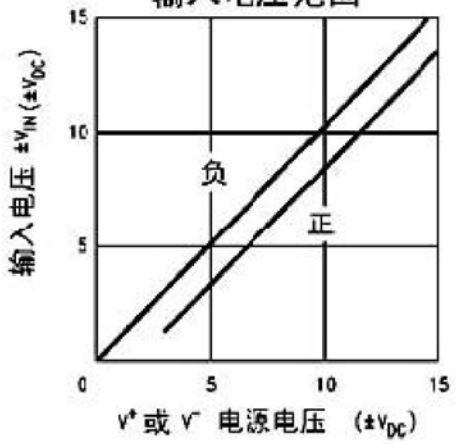


固定电流源

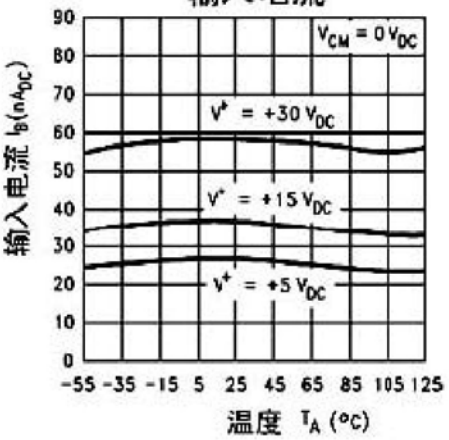


典型特性曲线

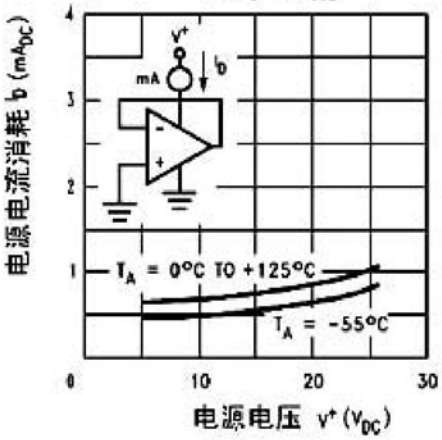
输入电压范围



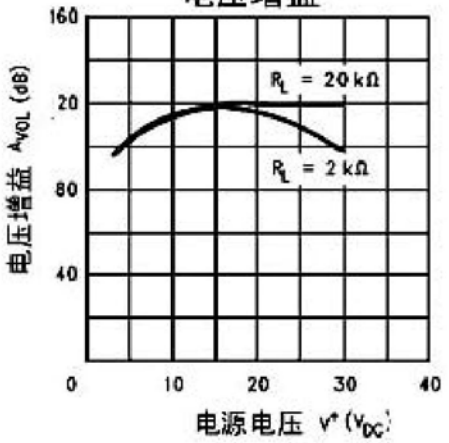
输入电流



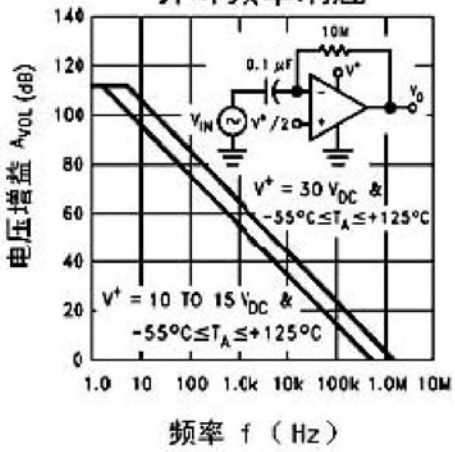
电源电流



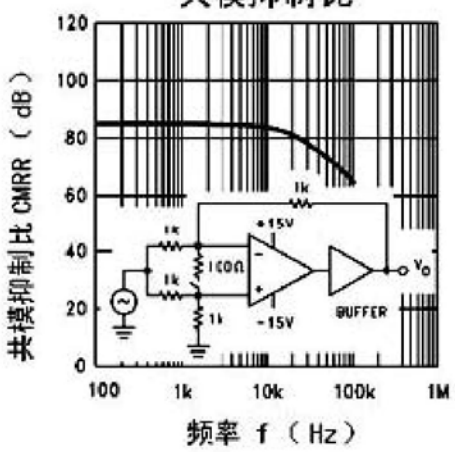
电压增益



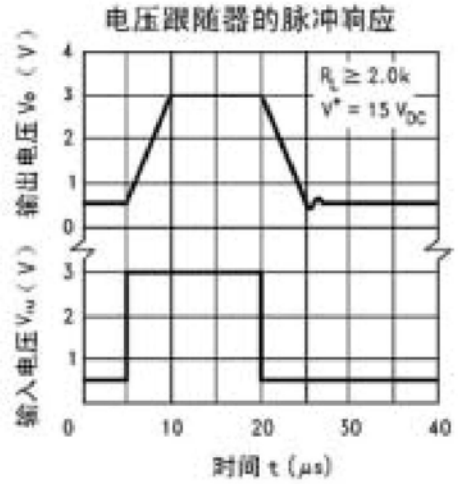
开环频率响应



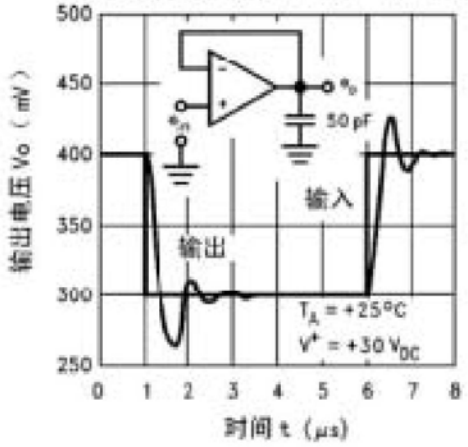
共模抑制比



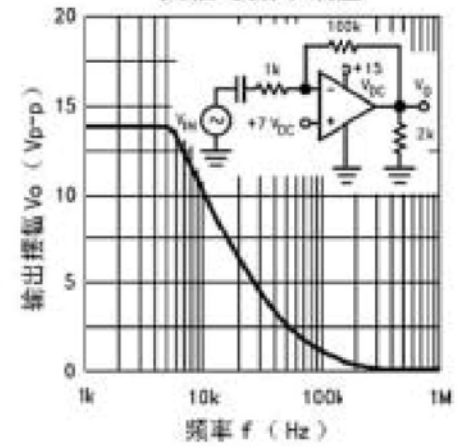
电压跟随器的脉冲响应



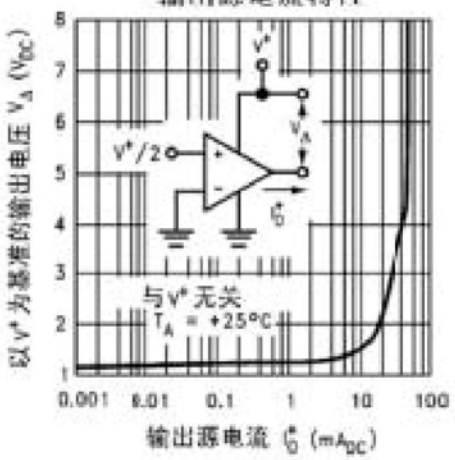
电压跟随器的脉冲响应（小信号）



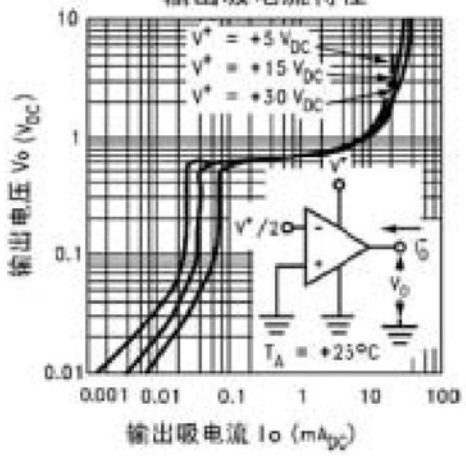
大信号频率响应



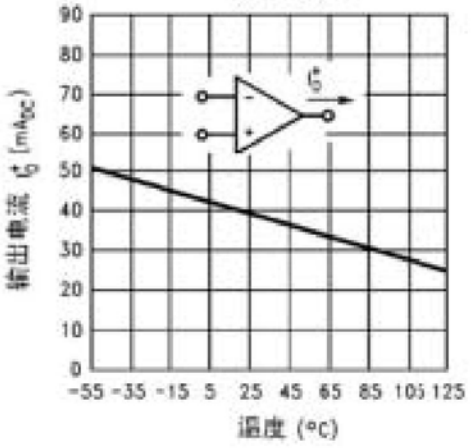
输出源电流特性



输出吸电流特性

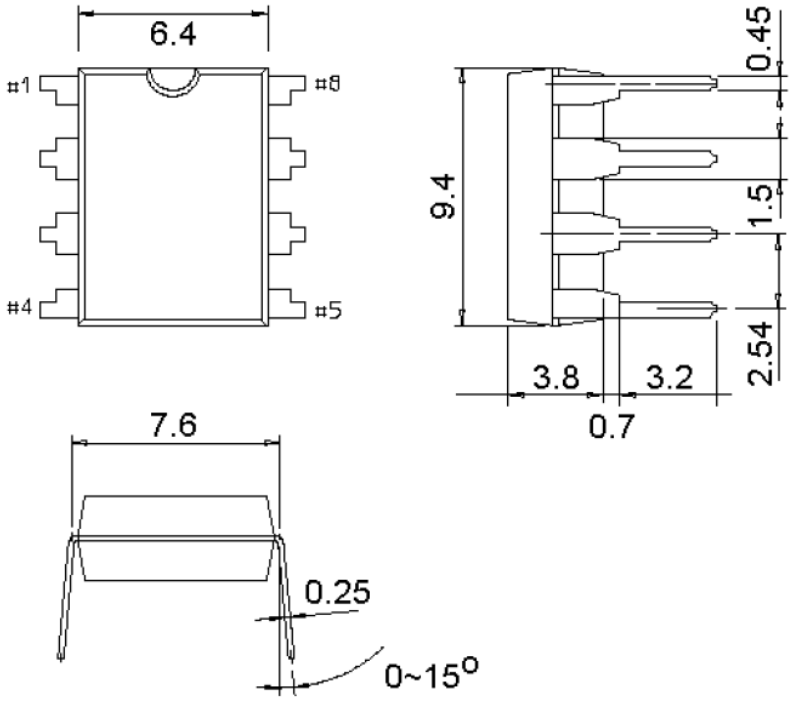


极限电流

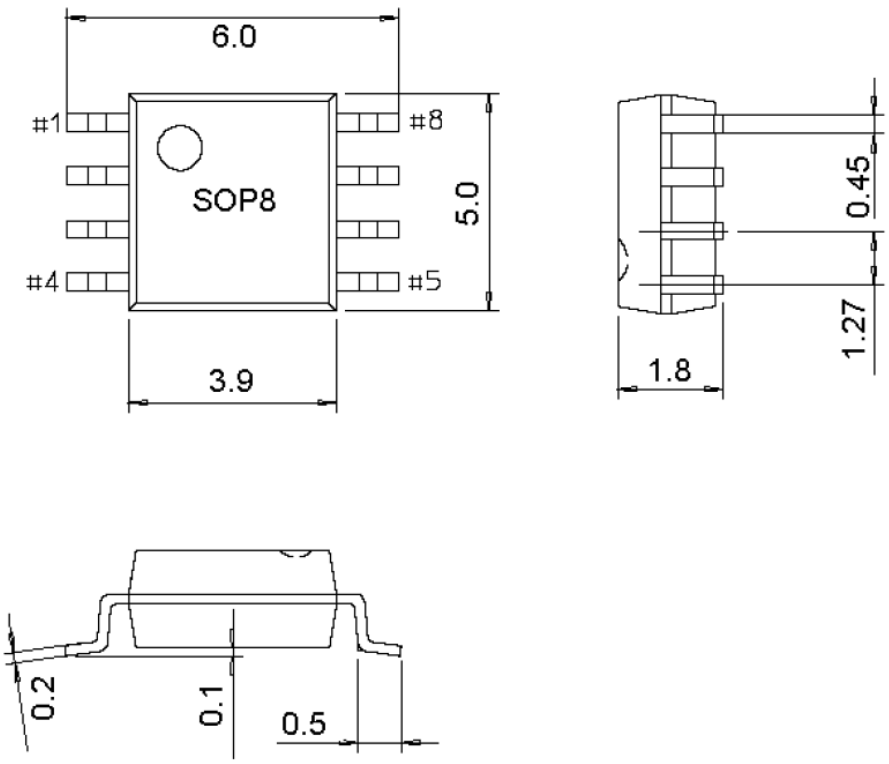


封装信息：

DIP-8



SOP-8



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