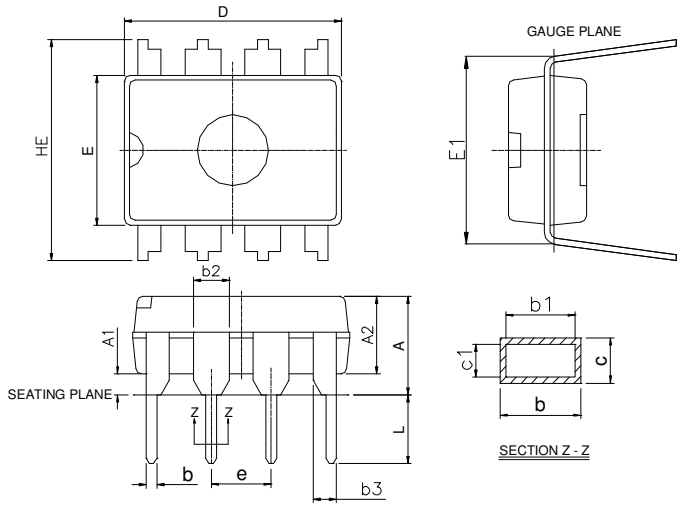
Elektronische Bauelemente

SPWLM358D

Dual Operational Amplifier

RoHS Compliant Product

DIP-8



Description

The SPWLM358D consists of two independent high gain, internally frequency compensated operational amplifier. It can be operated from a Single power supply and also split power supplies.

Features

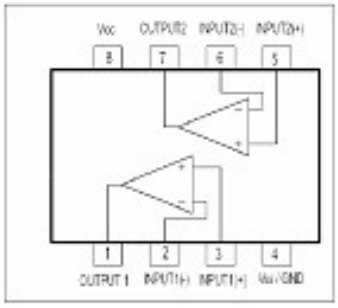
* Input Common-Mode Voltage Range Include Ground
* Large DC Voltage Gain
* Internally Frequency Compensated For Unity Gain
* Wide Power Supply Range 3V-32V

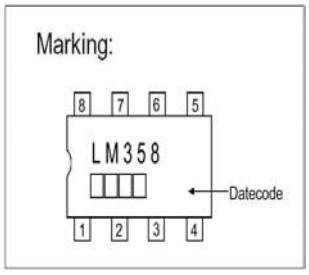
Applications

* Gerneal Purpose Amplifier
* Transducer Amplifier

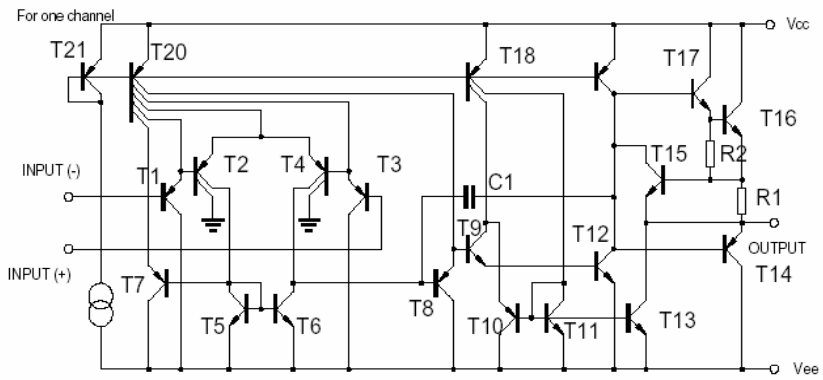
REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	-	0.5334	c1	0.203	0.279
A1	0.381	-	D	9.017	10.16
A2	2.921	4.953	E	6.096	7.112
b	0.356	0.559	E1	7.620	8.255
b1	0.356	0.508	e	2.540 BSC	
b2	1.143	1.778	HE	-	10.92
b3	0.762	1.143	L	2.921	3.810
c	0.203	0.356			

Pin Configurations





BLOCK DIAGRAM



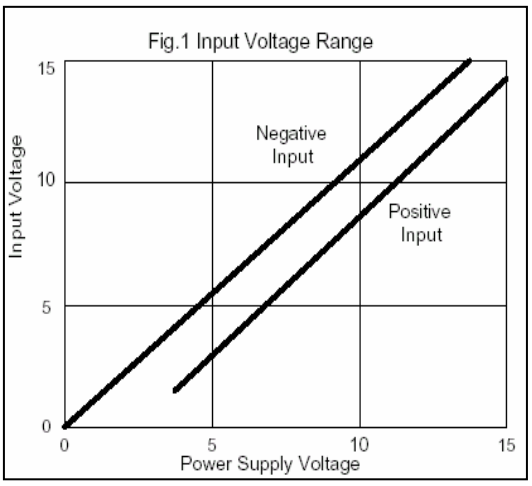
Absolute Maximum Ratings at Ta = 25℃

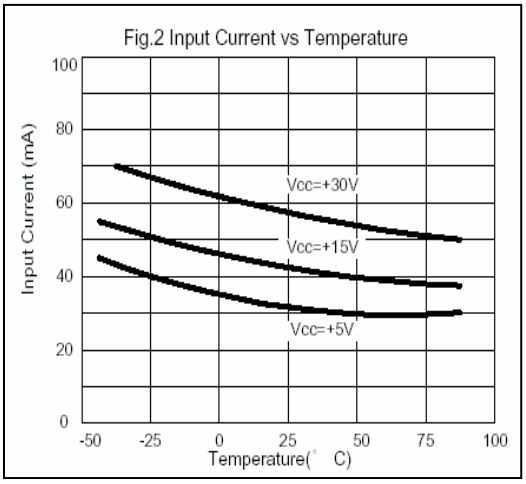
Parameter	Symbol	VALUE	Unit
Supply Voltage	Vcc	+-16 or 32	V
Differential Input Voltage	VI(DIFF)	+-32	V
Input Voltage	VI	-0.3 ~+32	V
Output Short to Ground		Continuous	
Operating Temperature Range	TOPR	0~+70	℃
Storage Temperature Range	TSTG	-65~+150	℃

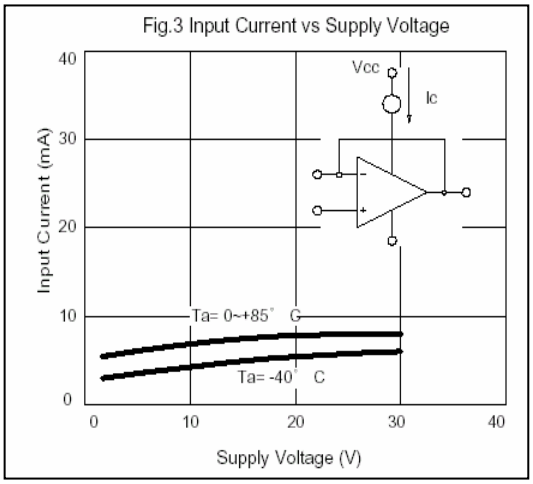
Electrical Characteristics (Vcc=5.0V VEE=GND,TA=25℃,unless otherwise specified)

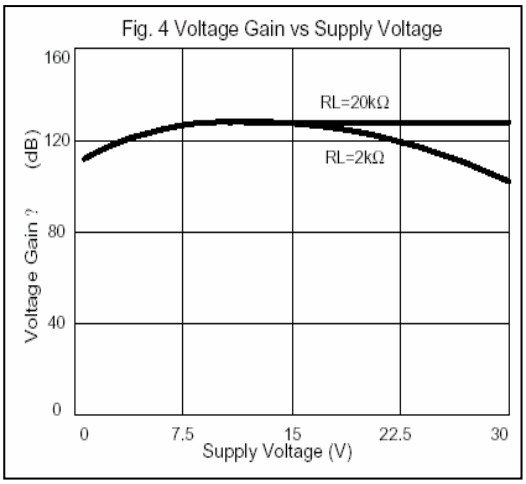
Parameter	SYMBOL	Test Conditions	Min	Typ.	Max.	Unit
Input Offset Voltage	VIO	VCM=0V to VCC-1.5V VO(P)=1.4V,RS=0Ω		2.9	7.0	mV
Input Offset Current	IIO			5	50	nA
Input Bias Current	IBIAS			45	250	nA
Input Common Mode Voltage	VI(R)	VCC=30V	0		VCC-1.5	V
Power Supply Current	ICC	RL=∞,VCC=30V		0.8	2.0	mA
		RL=∞,Full Temperature	-	0.5	1.2	mA
Large Signal Voltage Gain	GV	VCC=15V,RL>=2KΩ VO(P)=1V to 11V	25	100	-	V/mV
Output Voltage Swing	VO(H)	VCC=30V,RL=2KΩ	26			V
		VCC=30V,RL=10KΩ	27	28		V
	VO(L)	VCC=5V,RL>=10KΩ		5	20	mV
Common Mode Rejection Ratio	CMRR		65	80		dB
Power Supply Rejection Ration	PSRR		65	100		dB
Channel Separation	CS	F=1KHZ to 20KHZ		120		dB
Short Circuit Current to Ground	ISC			40	60	mA
Output Current	ISOURCE	VI(+)= 1V,VI(-)=0V VCC=15V,VO(P)=2v	10	30		mA
	ISINK	VI(+)=0V,,VI(-)=1V VCC=15V,VO(P)=2V	10	15		mA
		VI(+)=0V,,VI(-)=1V VCC=15V,VO(P)=200mV	12	100		μA
Differential Input Voltage	VI(DIFF)				VCC	V

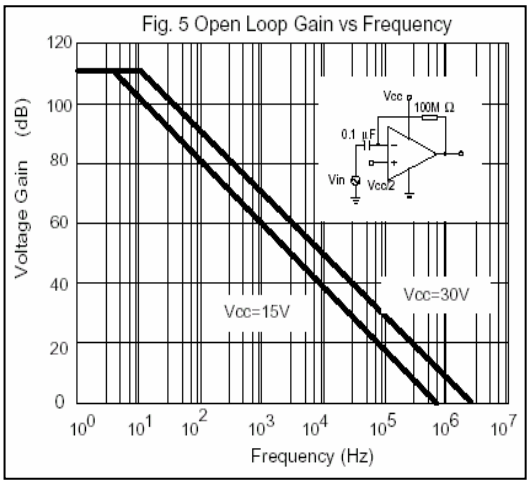
Characteristics Curve











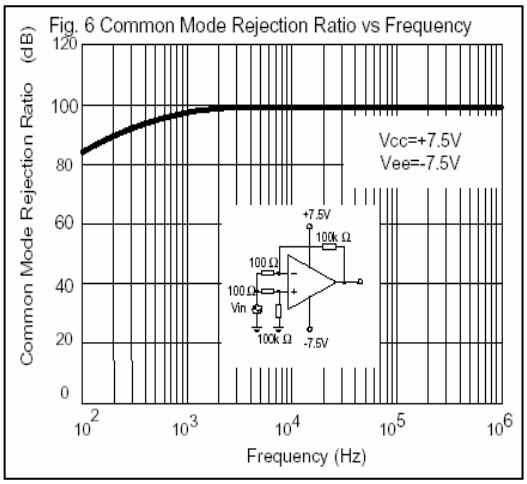


Fig. 7 Voltage Follower Pulse Response

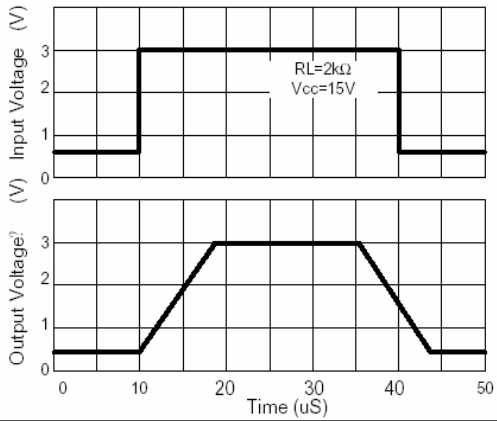


Fig. 8 Voltage Follower Response (Small Signal)

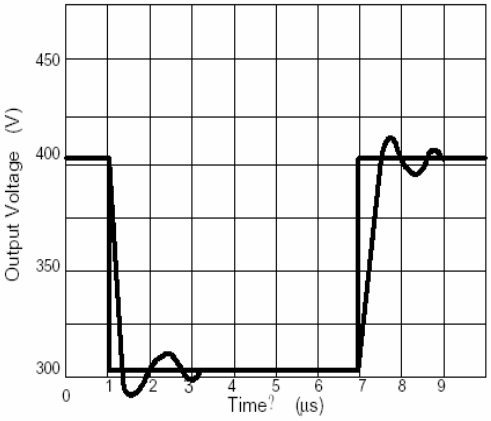


Fig. 9 Gain vs Large Signal Frequency

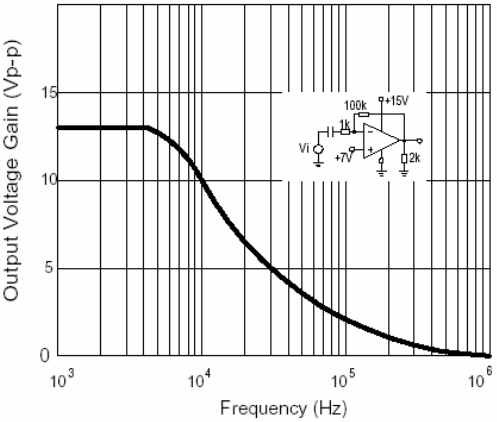


Fig. 10 Output Current Sinking vs Output Voltage

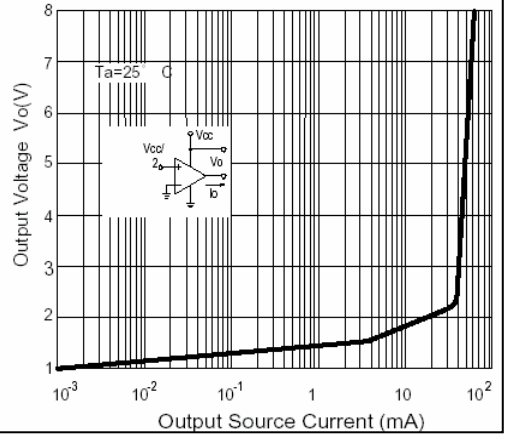


Fig. 11 Output Sink Current vs Output Voltage

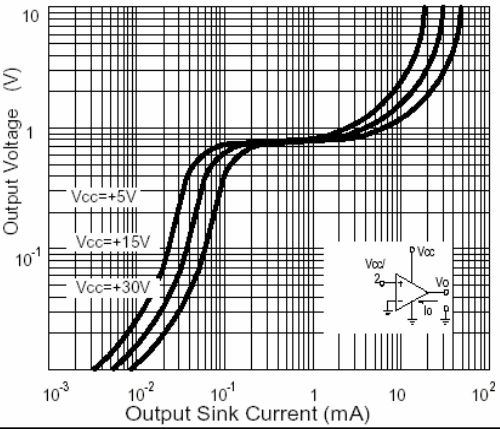


Fig.12 Current Limiting vs Temperature