

### Description

The A4558 is a monolithic Integrated Circuit designed for dual operational amplifier.

### Features

- Power consumption as small as about 50mW (typ.)
- Built-in output short-circuit protecting circuit.
- Internal phase consumption type.
- No latch-up
- Wide same phase mode and differential voltage ranges
- High gain. low noise

### Applications

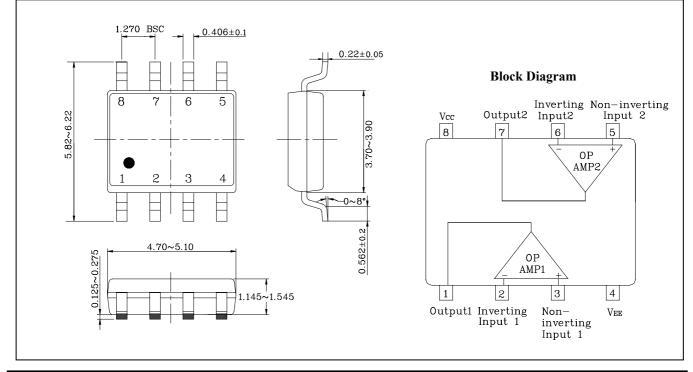
- Active filters
- Audio amplifiers
- VCOs
- Other electronic circuits

### **Ordering Information**

Type NO.	Marking	Package Code			
A4558	A4558	SOP-8			

## **Outline Dimensions**

unit : mm



# Absolute maximum ratings

Characteristic	Symbol	Ratings	Unit
Supply voltage	V <sub>CC</sub>	20 or ±10	V
Differential input voltage	V <sub>IND</sub>	20	V
Input voltage	V <sub>IN</sub>	±10	V
Power Dissipation	P <sub>D</sub>	300	mW
Operating temperature	T <sub>opr</sub>	-45 ~ +85	°C
Storage temperature	T <sub>stg</sub>	-55 ~ +150	°C

## **Electrical Characteristics**

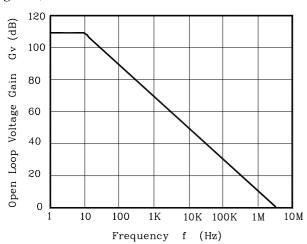
(Unless otherwise specified.  $V_{CC}$  = +5V,  $V_{EE}$ =-5V and Ta = 25 °C)

Parameter	Symbol	Test Conditions	Min.	Тур.	Max.	Unit
Input Offset Voltage	V <sub>IOS</sub>	Rg≤10 kΩ	0	0.5	6	mV
Input Offset Current	I <sub>IOS</sub>	-	-	5	200	nA
Input Bias Current	I <sub>IB</sub>	-	-	60	500	nA
Input Common Mode Voltage Range	V <sub>ICR</sub>	-	±5	±7	-	V
Maximum Qutnut Voltaga	V <sub>OM</sub>	$R_L = 10 \ k\Omega$	±2.9	±3.4	-	V
Maximum Output Voltage		R <sub>L</sub> =2 kΩ	±2.7	±3.2	-	V
Common Mode Rejection Ratio	CMRR	Rg≤ 10 kΩ	70	90	-	dB
Power Supply Rejection Ratio	PSRR	Rg≤ 10 kΩ	-	30	150	uV/V
Supply Current	I <sub>CC</sub>	-	-	3	6	mA
Slew Rate	SR	$R_L \ge 2 k\Omega$	-	2	-	V/us
Unity Gain Cross Frequency	f⊤	Open Loop	-	3	-	MHz
Large Signal Voltage Gain	Gv	$V_{CC}$ =8V, $V_{EE}$ =-8V, $R_L$ =2K	86	100	-	dB
Output Sink Current	I <sub>SINK</sub>	-	15	25	-	mA
Output Source Current	I <sub>SOURCE</sub>	-	15	25	-	mA

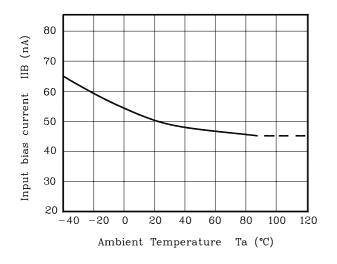
# A4558

## **Electrical Characteristic Curves**









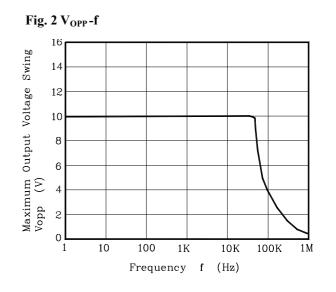
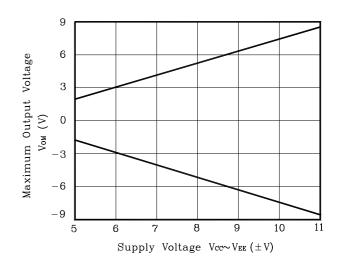


Fig. 4 V<sub>OM</sub>-V<sub>cc</sub>, V<sub>EE</sub>



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