AUK Semiconductor

A4558

Low Noise Dual OP AMP

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

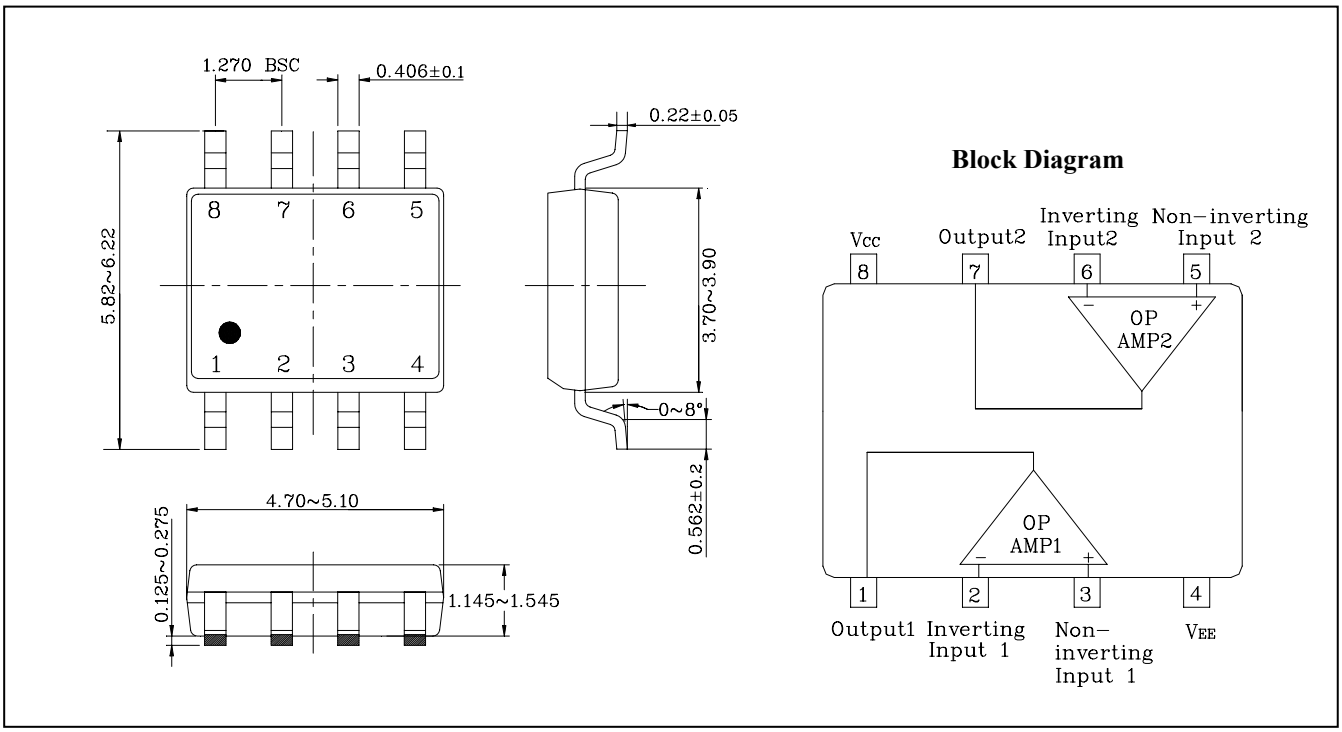
- Active filters
- Audio amplifiers
- VCOs
- Other electronic circuits

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_{CC}	20 or ±10	V
Differential input voltage	V_{IND}	20	V
Input voltage	V_{IN}	±10	V
Power Dissipation	P_D	300	mW
Operating temperature	T_{opr}	-45 ~ +85	°C
Storage temperature	T_{stg}	-55 ~ +150	°C

Electrical Characteristics

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

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Input Offset Voltage	V_{IOS}	Rg≤ 10 kΩ	0	0.5	6	mV
Input Offset Current	I_{IOS}	-	-	5	200	nA
Input Bias Current	I_{IB}	-	-	60	500	nA
Input Common Mode Voltage Range	V_{ICR}	-	±5	±7	-	V
Maximum Output Voltage	V_{OM}	R_L=10 kΩ	±2.9	±3.4	-	V
		R_L=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_{CC}	-	-	3	6	mA
Slew Rate	SR	R_L≥ 2 kΩ	-	2	-	V/us
Unity Gain Cross Frequency	f_T	Open Loop	-	3	-	MHz
Large Signal Voltage Gain	G_V	V_{CC}=8V, V_{EE}=-8V, R_L=2K	86	100	-	dB
Output Sink Current	I_{SINK}	-	15	25	-	mA
Output Source Current	I_{SOURCE}	-	15	25	-	mA

Electrical Characteristic Curves

Fig. 1 G_V - f

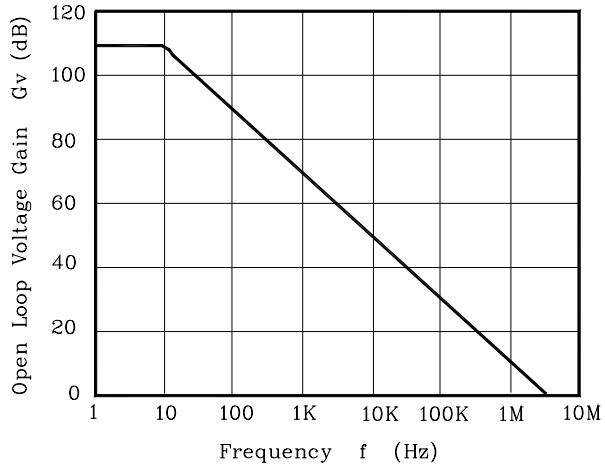


Fig. 2 V_{OPP}-f

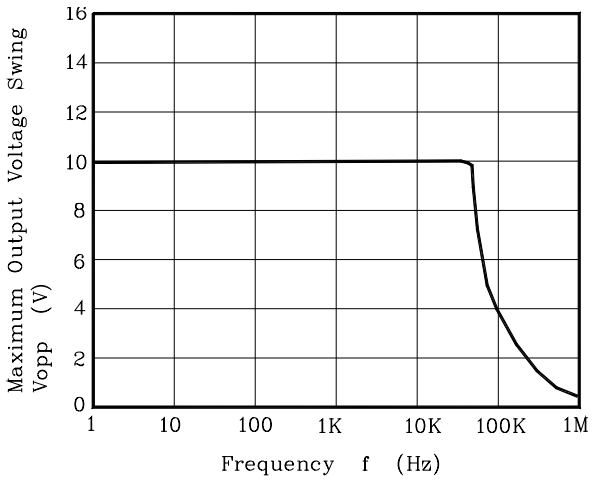


Fig. 3 I_{IB} - T_a

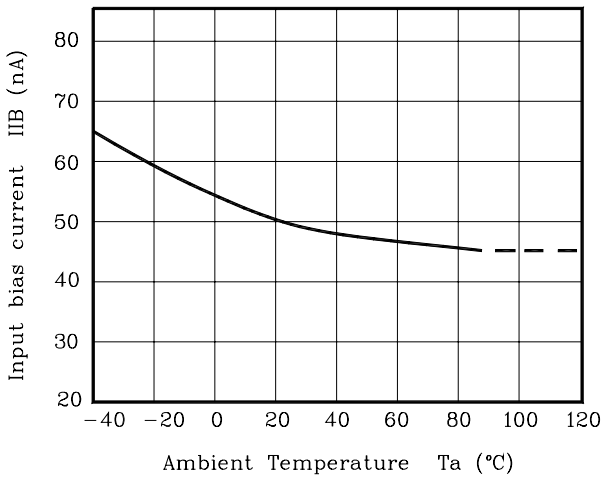
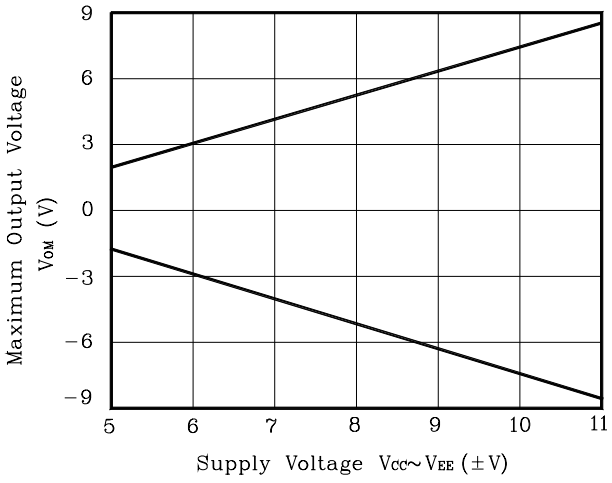


Fig. 4 V_{OM}-V_{cc}, V_{EE}



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