AUK Semiconductor

S4560

Dual high slew rate OP AMP

Description

The S4560 is dual operational amplifiers which achieve approximately twice the high output current of the S4560, as well as featuring a higher slew rate of 4V/us, a gain band width of 10MHz, and an improved frequency characteristic.

Features

- Built-in output short-circuit protection circuit.
- Internal phase correction.
- No latch-up
- Wide same phase mode and differential voltage ranges
- High gain. low noise

Applications

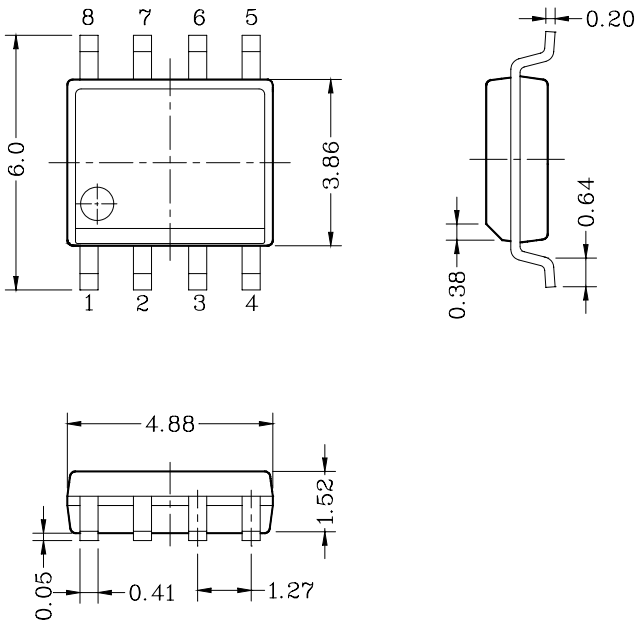
- Active filters
- Audio amplifiers
- VCOs
- Other electronic circuits

Ordering Information

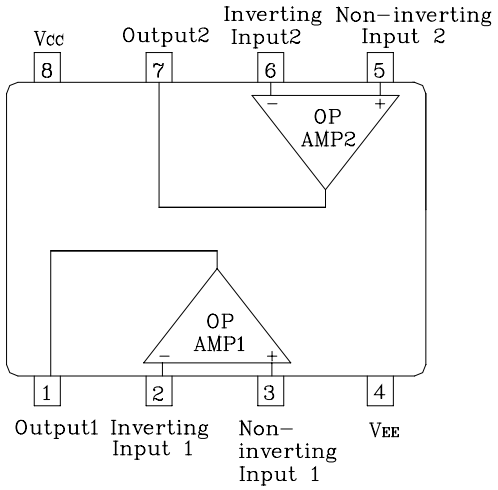
Type NO.	Marking	Package Code
S4560	S4560	SOP-8

Outline Dimensions

unit : mm



Block Diagram



Absolute maximum ratings

(Ta = 25 °C)

Characteristic	Symbol	Ratings	Unit
Supply voltage	V_{CC}	±18	V
Differential input voltage	V_{ID}	±30	V
Input voltage	V_{IC}	-Vcc~Vcc	V
Power Dissipation	P_D*	550	mW
Operating temperature	T_{opr}	-40 ~ +85	°C
Storage temperature	T_{stg}	-55 ~ +125	°C

* Refer to Pd characteristics diagram. The values for the S4560 are those when it is mounted on a glass epoxy PCB(50 ㎜×50 ㎜×1.6 ㎜).

Electrical Characteristics

(Unless otherwise specified. V_{CC} = +15V, V_{EE}= − 15V and Ta = 25 °C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input offset voltage	V_{IOS}	Rg ≤ 10 kΩ	-	0.5	6	mV
Input offset current	I_{IOS}	-	-	5	200	nA
Input bias current	I_{IB}	-	-	50	500	nA
Input common mode Voltage Range	V_{ICR}	-	±12	±14	-	V
Maximum Output Voltage	V_{OM}	R_L≥ 10 kΩ	±12	±14	-	V
		R_L≥ 2 kΩ	±10	±13	-	V
Large signal Voltage Gain	G_V	Vout=±10V, RL≥ 2 kΩ	86	100	-	dB
Common mode rejection ratio	CMRR	Rg ≤ 10 kΩ	70	90	-	dB
Power supply rejection ratio	PSRR	Rg ≤ 10 kΩ	-	30	150	uV/V
Slew Rate	SR	G_V=1, R_L≥ 2 kΩ	-	4.0	-	V/us
Input conversion noise voltage	V_n	-	-	-	2.2	uV
Gain band width product	GBW	f=10kHz	-	10	-	MHz

Electrical Characteristic Curves

Fig. 1 G_V – f

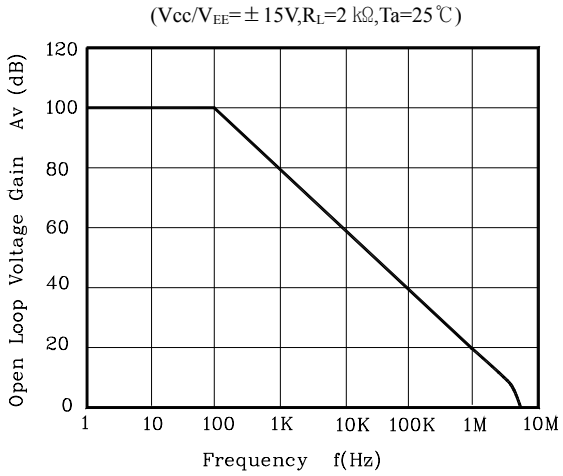


Fig. 2 V_{OP-P} – f

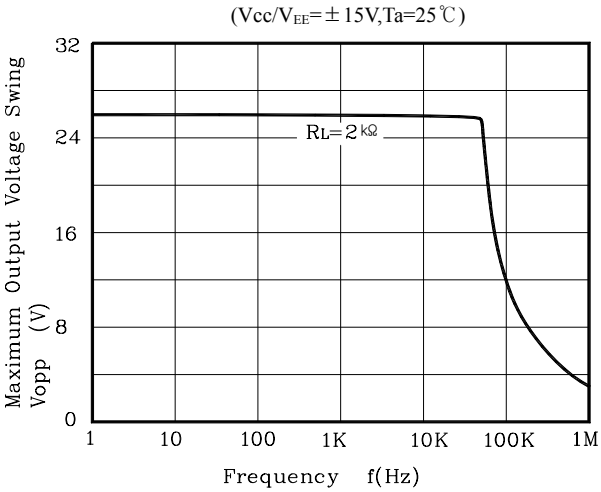


Fig. 3 I_{IB} - T_a

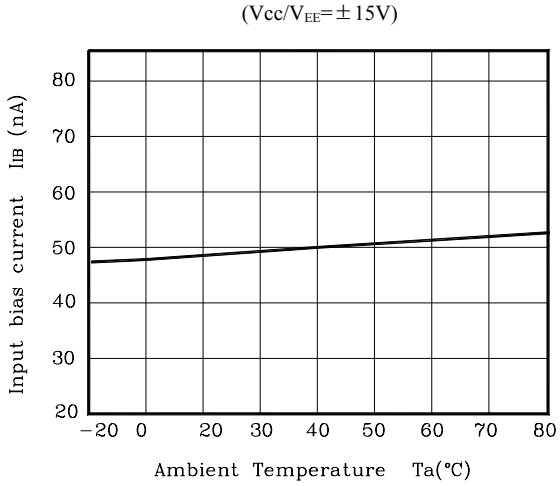


Fig. 4 V_{ICR} - V_{CC} / V_{EE}

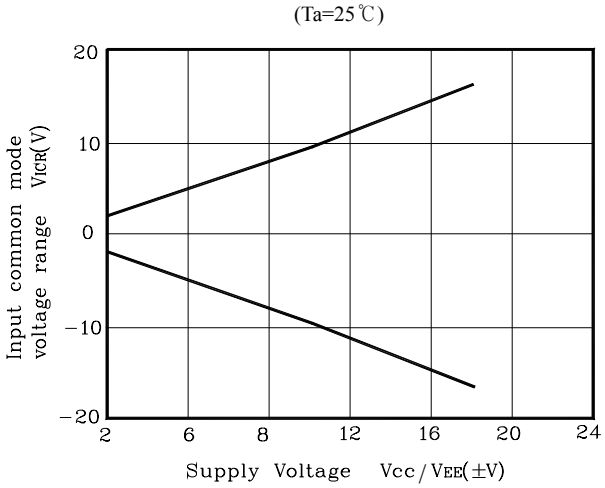


Fig. 5 I_Q - V_{CC} / V_{EE}

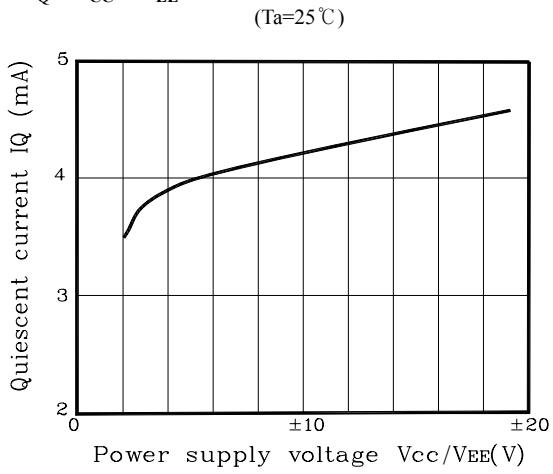


Fig. 6 I_{IB} - V_{CC}