SN4560

Dual high slew rate OP AMP

Description

The SN4560 is dual operational amplifiers which achieve approximately twice the high output current of the SN4560, 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

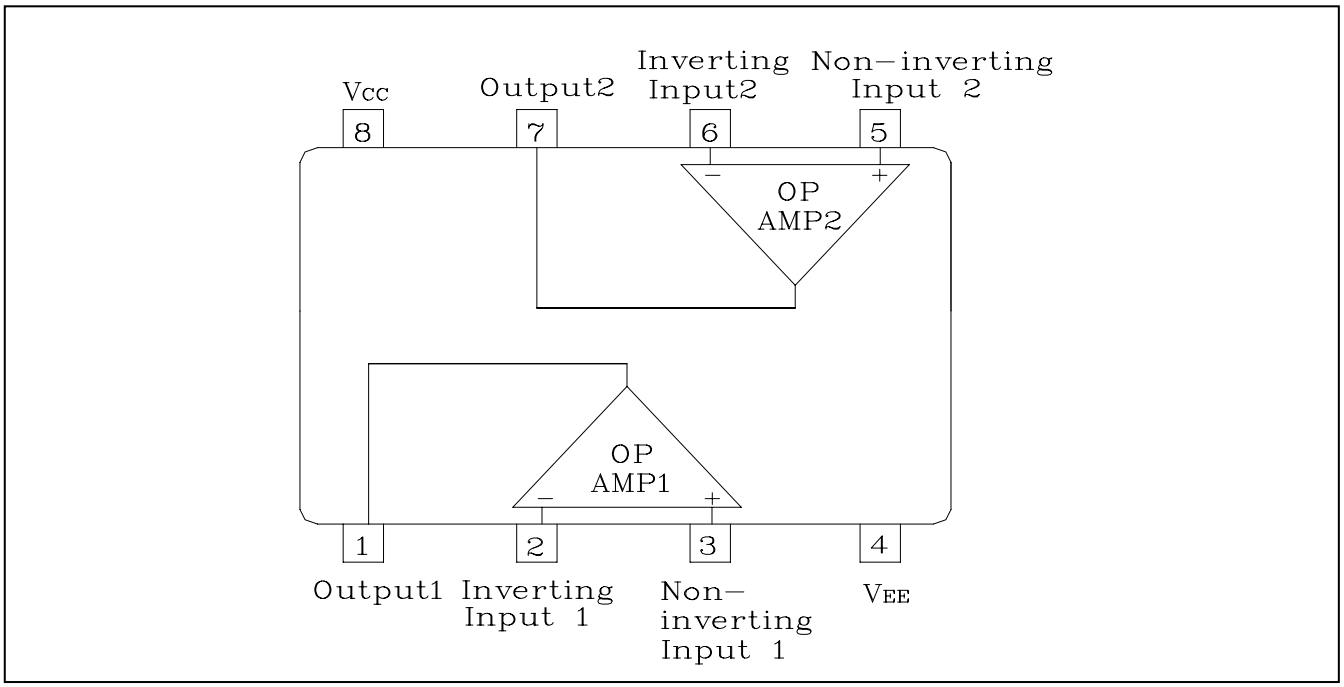
Applications

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

Ordering Information

Type NO.	Marking	Package Code
SN4560	SN4560	SOP-8

Pin Assignment & 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 SN4560 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

(Vcc/V_{EE}=±15V,R_L=2 kΩ,Ta=25℃)

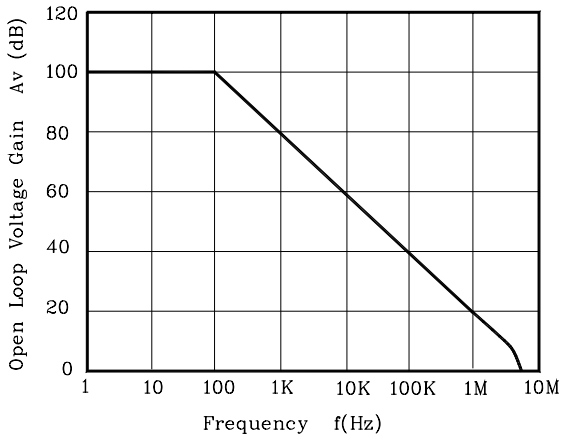


Fig. 2 V_{OP-P} – f

(Vcc/V_{EE}=±15V,Ta=25℃)

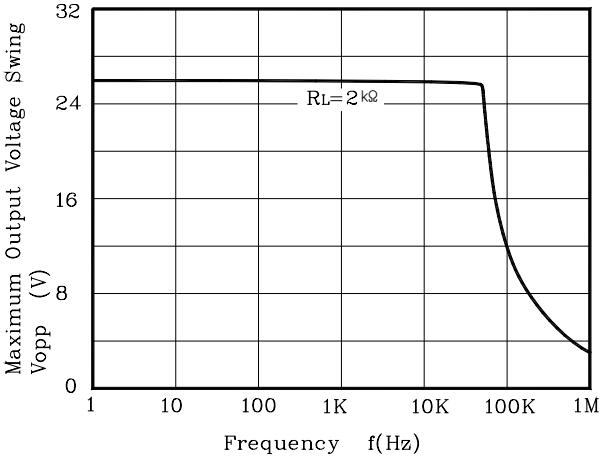


Fig. 3 I_{IB} - T_a

(Vcc/V_{EE}=±15V)

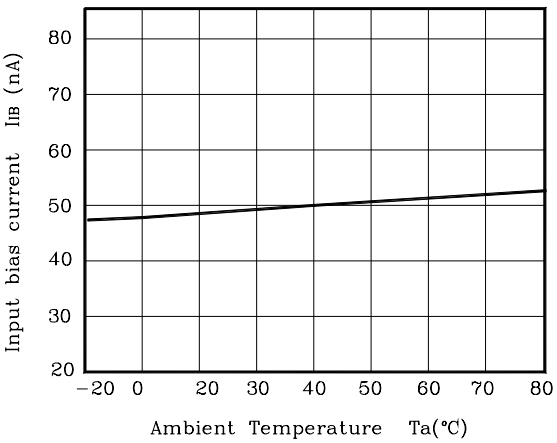


Fig. 4 V_{ICR} - V_{CC} / V_{EE}

(Ta=25℃)

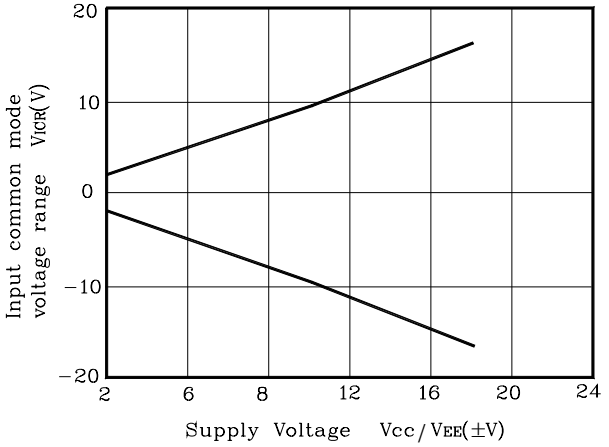


Fig. 5 I_Q - V_{CC} / V_{EE}

(Ta=25℃)

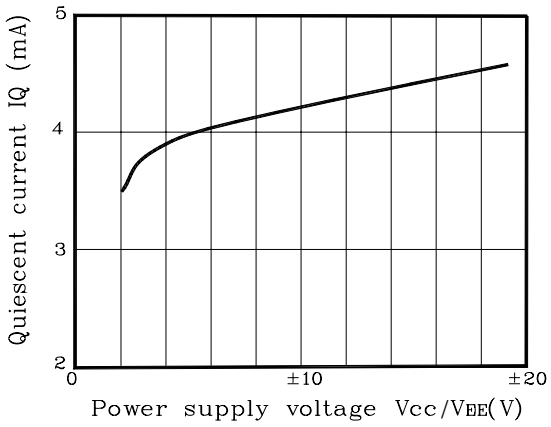
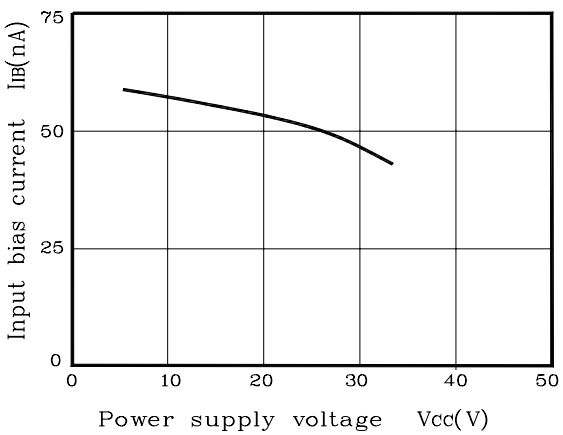
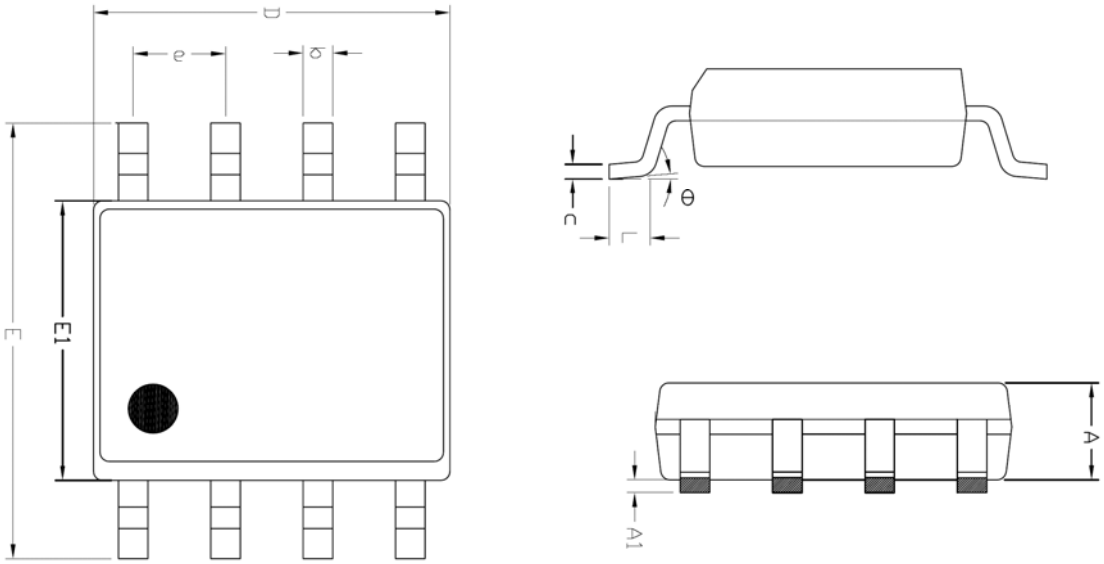


Fig. 6 I_{IB} - V_{CC}

(Ta=25℃)

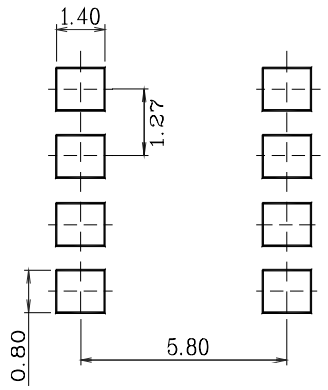


Outline Dimension (Unit : mm)



SYMBOL	MILLIMETER(mm)			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	1.245	—	1.445	
A1	0.125	0.175	0.275	
b	0.320	0.420	0.520	
c	0.170	0.220	0.270	
D	4.802	4.902	5.002	
E	5.870	6.020	6.170	
E1	3.761	3.861	3.961	
e	1.270 BSC			
L	0.462	0.562	0.662	
θ	0 °	—	8 °	

※ Recommend PCB solder land (Unit : mm)



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