

AN4558 (AN6552), AN4558S (AN6552S)

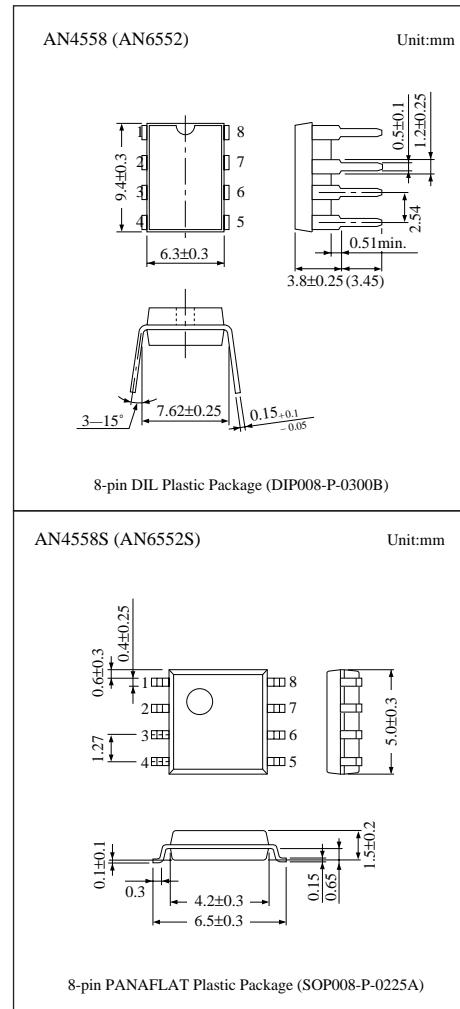
Dual Operational Amplifiers

■ Overview

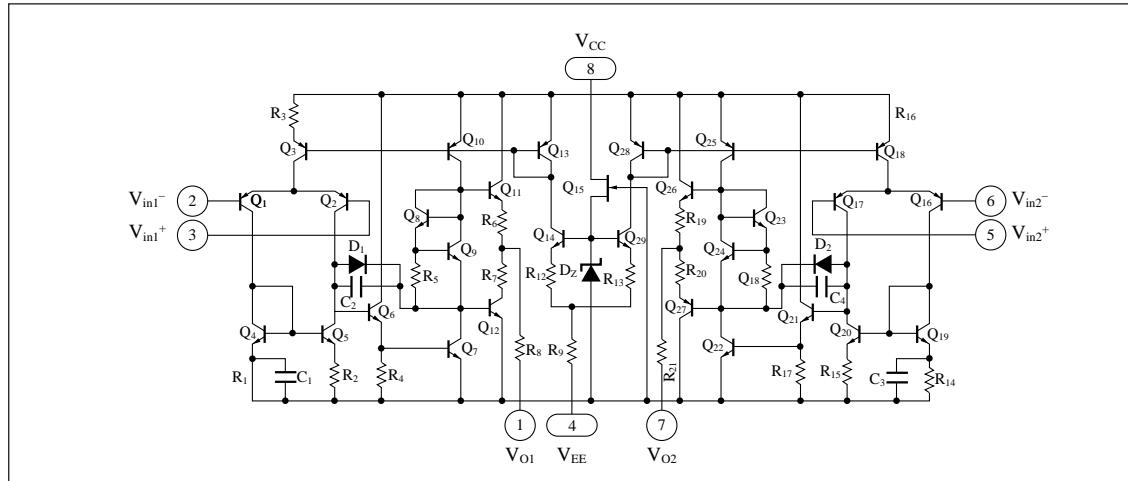
The AN4558 (AN6552) and the AN4558S (AN6552S) are dual operational amplifiers with phase compensation circuits built-in, and suitable for application to various electronic circuits such as active filters and audio preamplifiers.

■ Features

- Phase compensation circuit
- High voltage gain, low noise
- Output short-circuit protection
- Slew rate: SR=1V/ μ s typ.



■ Block Diagram



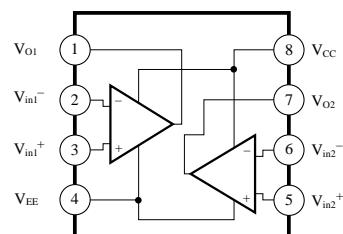
■ Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Rating	Unit
Voltage	Supply voltage	V _{CC}	±18	V
	Differential input voltage	V _{ID}	±30	V
	Common-mode input voltage	V _{ICM}	±15	V
Power dissipation	AN4558 (AN6552)	P _D	500	mW
	AN4558S (AN6552S)		360	
Temperature	Operating ambient temperature	T _{opr}	-20 to +75	°C
	Storage temperature	T _{stg}	-55 to +150	°C
	AN4558 (AN6552)		-55 to +125	

■ Electrical Characteristics (V_{CC}=15V, V_{EE}=-15V, Ta=25°C)

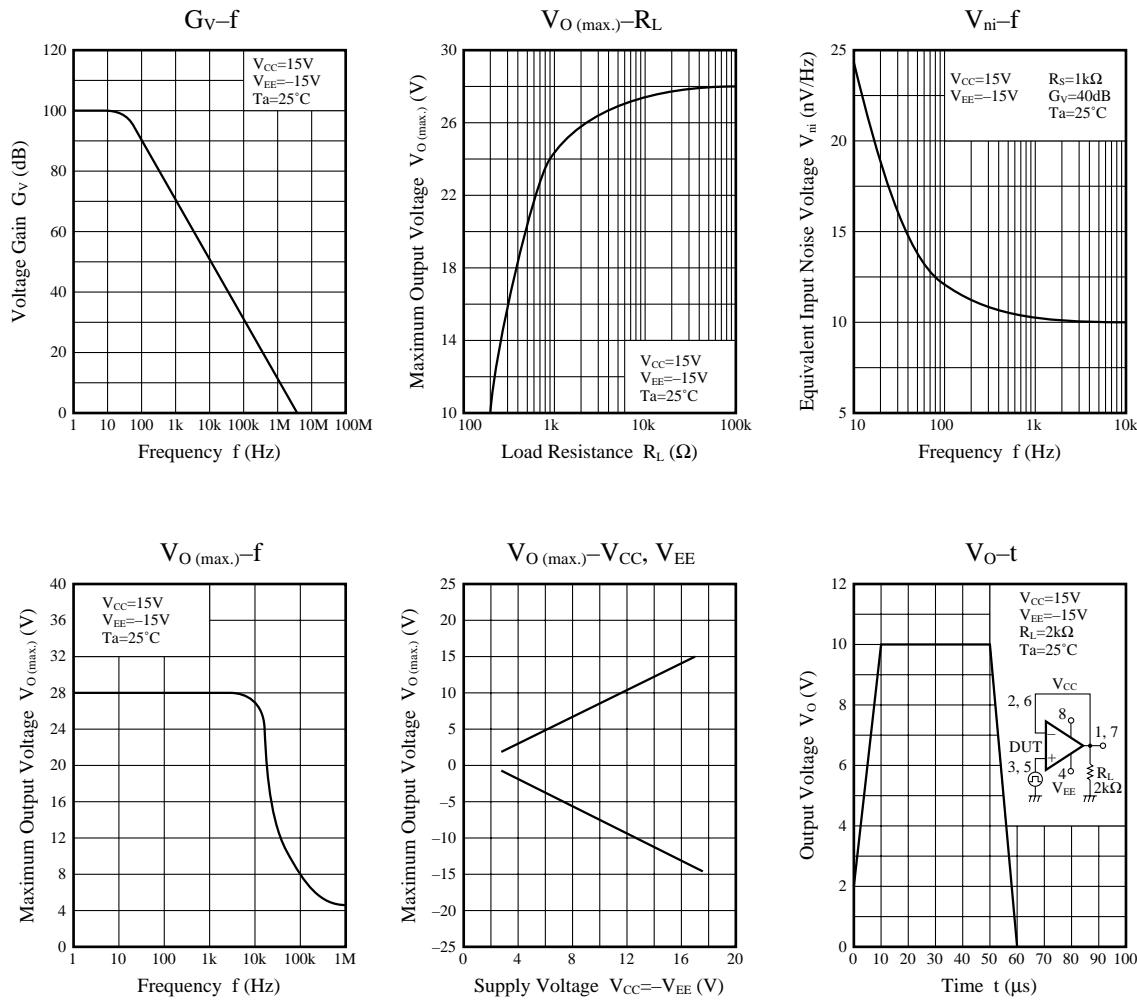
Parameter	Symbol	Condition	min	typ	max	Unit
Input offset voltage	V _I (offset)	R _S ≤10kΩ	—	0.5	6	mV
Input offset current	I _{IO}		—	5	200	nA
Input bias current	I _{Bias}		—	—	500	nA
Voltage gain	G _V	R _L ≥2kΩ, V _O =±10V	86	100	—	dB
Maximum output voltage	V _O (max.)	R _L ≥10Ω	±12	±14	—	V
		R _L ≥2kΩ	±10	±13	—	V
Common-mode input voltage width	V _{CM}		±12	±14	—	V
Common-mode rejection ratio	CMR		70	90	—	dB
Supply voltage rejection ratio	SVR		—	30	150	µV/V
Power consumption	P _C	R _L =∞	—	90	170	mW
Slew rate	SR	R _L ≥2kΩ	—	1.0	—	V/µs
Equivalent input noise voltage	V _{ni}	R _S =1kΩ, B=10Hz to 30kHz	—	2.5	—	µVRms

■ Pin Assignments

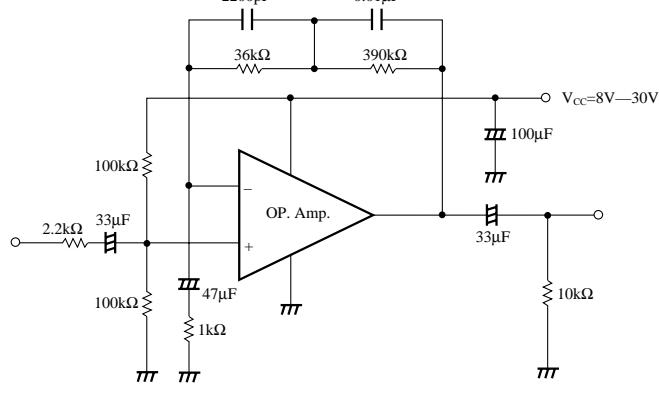


■ Pin Descriptions

Pin No.	Pin name
1	Ch.1 output
2	Ch.1 inverting input
3	Ch.1 non inverting input
4	V _{EE} (GND)
5	Ch.2 non inverting input
6	Ch.2 inverting input
7	Ch.2 output
8	V _{CC}



■ Application Circuit



RIAA Pre-Amp. (Single Voltage Operation)