

AN4558 (AN6552), AN4558S (AN6552S)

Dual Operational Amplifiers

Overview

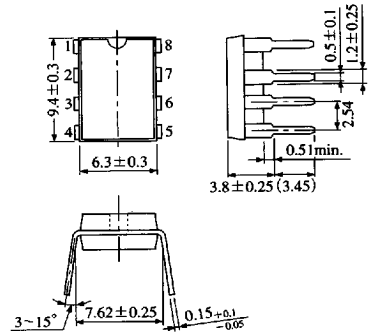
The AN4558 (AN6552) and the AN4558S (AN6552S) are dual operational amplifiers with phase compensation circuits built-in, and suitable for application to various electronic circuits such as active filters and audio preamplifiers.

Features

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

AN4558 (AN6552)

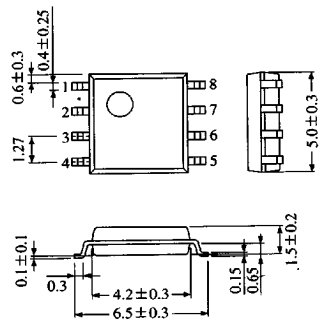
Unit : mm



8-pin DIL Plastic Package (DIP008-P-0300B)

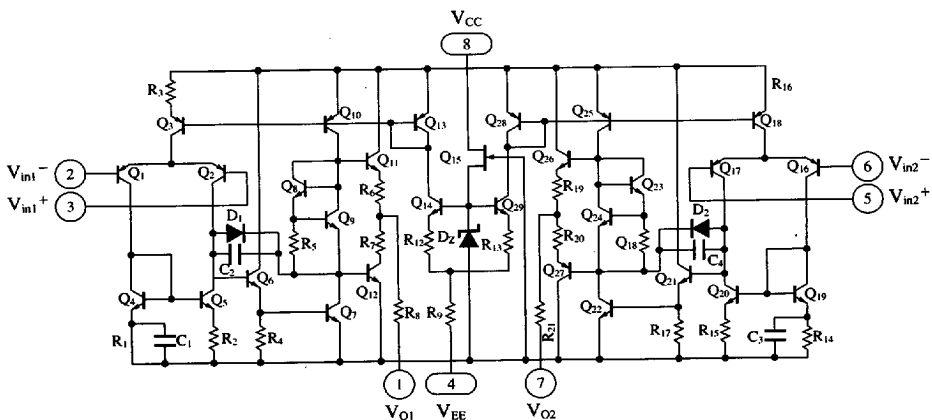
AN4558S (AN6552S)

Unit : mm



8-pin PANAFLAT Plastic Package (SOP008-P-0225A)

Schematic Diagram



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■ Absolute Maximum Ratings (Ta=25℃)

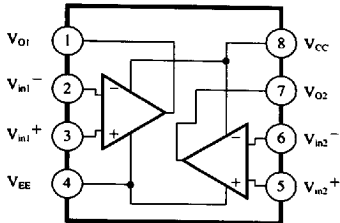
Parameter			Symbol	Rating	Unit
Voltage	Supply voltage		V _{CC}	±18	V
	Differential input voltage		V _{ID}	±30	V
	Common-mode input voltage		V _{ICM}	±15	V
Power dissipation		AN4558 (AN6552)	P _D	500	mW
		AN4558S (AN6552S)		360	
Temperature	Operating ambient temperature		T _{opr}	−20 to +75	℃
	Storage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

■ Electrical Characteristics (V_{CC}=15V, V_{EE}=−15V, Ta=25℃)

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

Operational
Amplifiers

■ Pin Assignments



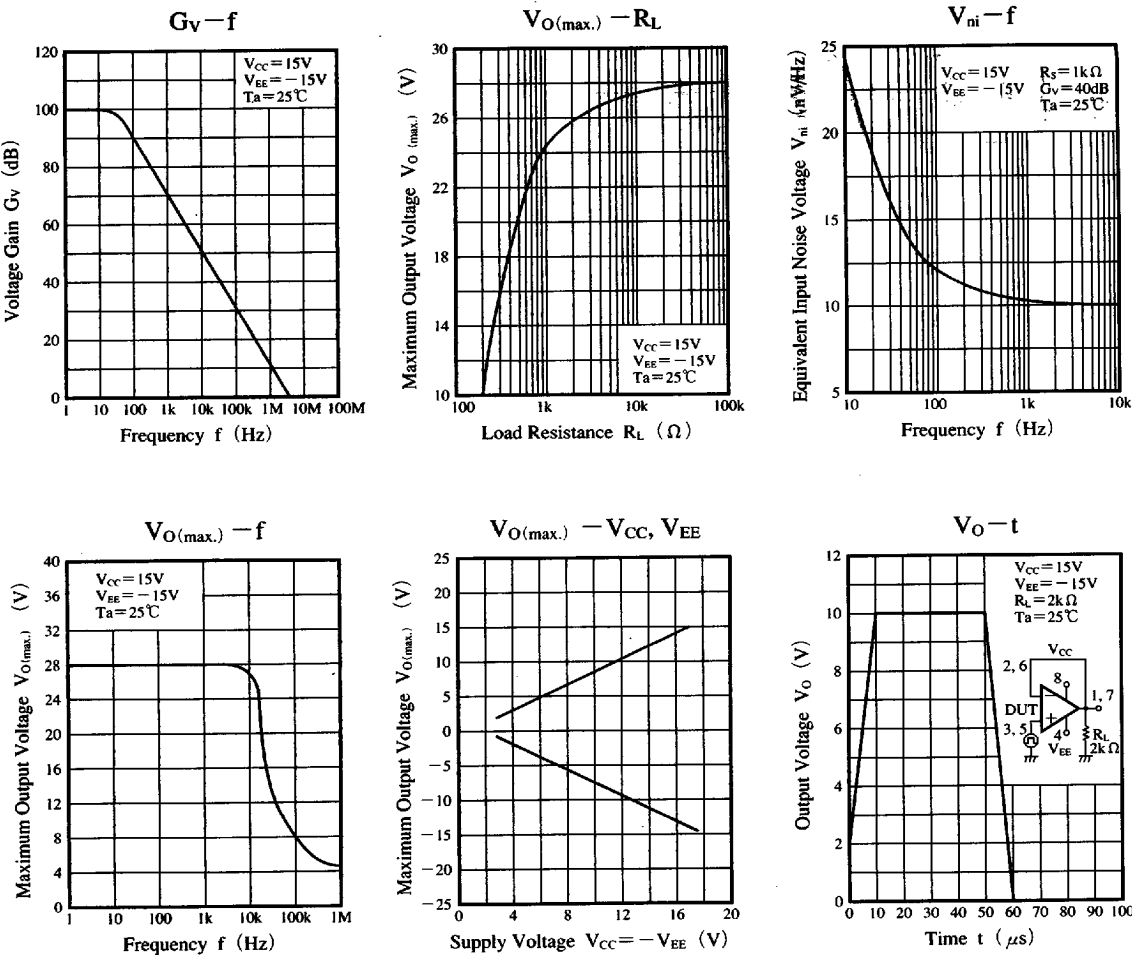
■ Pin Descriptions

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}

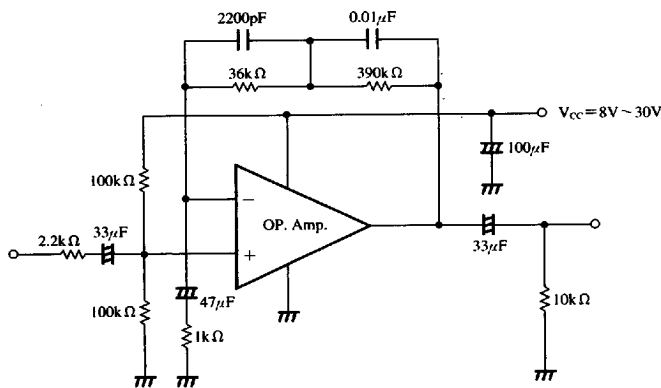
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■ Characteristics Curve



■ Application Circuit



RIAA Pre-Amp. (Single Voltage Operation)

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