AN6555, AN6556, AN6556S

Low Noise Dual Operational Amplifiers

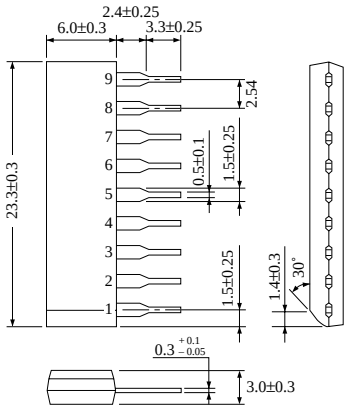
■ Overview

The AN6555, the AN6556, and the AN6556S are low noise, high slew rate dual operational amplifiers with phase compensation circuits built-in.
They are suitable for applications to various electronic circuits such as active filters and audio preamplifiers.

■ Features

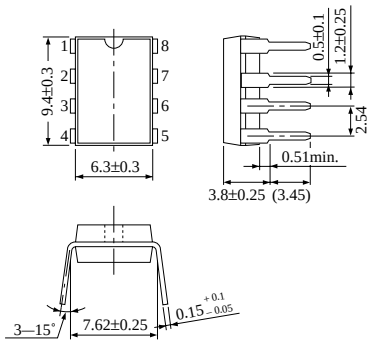
- Phase compensation circuit
- High voltage gain:Gv=100 dB typ.
- Low noise:input referred noise voltage Vni=1.5μ Vrms typ.
- High slew rate:SR=2V/μ s typ.
- Output short-circuit protection

AN6555 Unit:mm



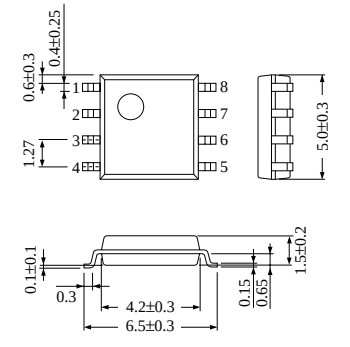
9-pin SIL Plastic Package (SIP009-P-0000)

AN6556 Unit:mm



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

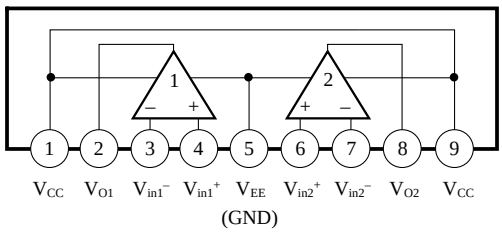
AN6556S Unit:mm



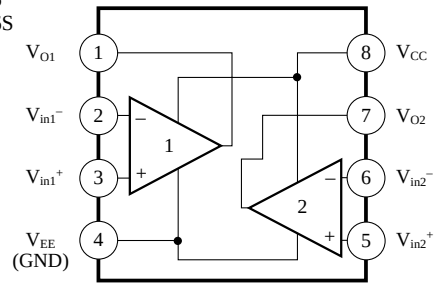
8-pin PANAFLAT Plastic Package (SOP008-P-0225A)

■ Block Diagram

AN6555



AN6556
AN6556S



■ Pin Descriptions

〈AN6555〉

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

〈AN6556, AN6556S〉

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}

■ Absolute Maximum Ratings (Ta=25˚C)

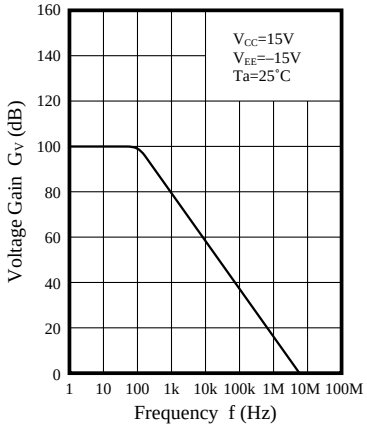
Parameter		Symbol	Rating	Unit
Voltage	Supply voltage	V_{CC}	±18	V
	Differential input voltage	V_{ID}	±30	V
	Common-mode input voltage	V_{ICM}	±15	V
Power dissipation	AN6555, AN6556	P_D	500	mW
	AN6556S		360	
Operating ambient temperature		T_{opr}	–20 to +75	˚C
Storage temperature	AN6555, AN6556	T_{stg}	–55 to +150	˚C
	AN6556S		–55 to +125	

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

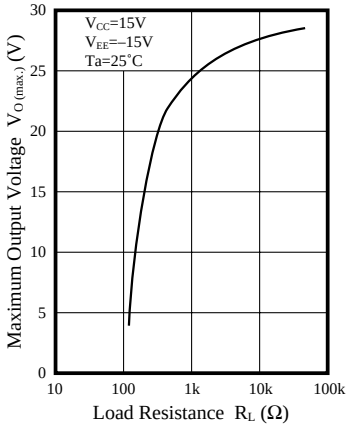
Parameter	Symbol	Condition	min	typ	max	Unit
Input offset voltage	$V_{I\ (offset)}$	$R_S \leqq 10k\Omega$	—	0.5	6	mV
Input offset current	I_{IO}		—	5	200	nA
Input bias current	I_{Bias}		—	—	500	nA
Voltage gain	G_V	$R_L \geqq 2k\Omega$, V_O=±10V	86	100	—	dB
Maximum output voltage	$V_{O\ (max.)}$	$R_L \geqq 10k\Omega$	±12	±14	—	V
		$R_L \geqq 2k\Omega$	±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	$R_L \geqq 2k\Omega$	—	2	—	V/μs
Equivalent input noise voltage	V_{ni}	R_S=1kΩ, DIN/AUDIO	—	1.5	—	μVrms

■ Characteristics Curve

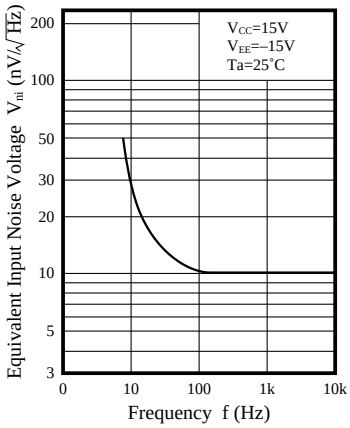
G_V–f



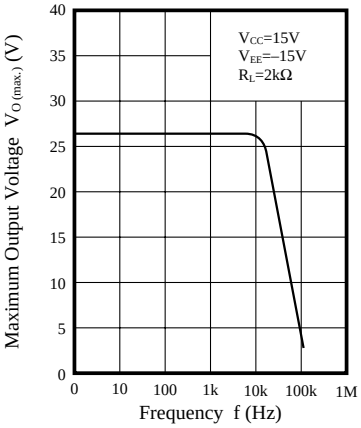
$V_{O\,(max.)}$ – R_L



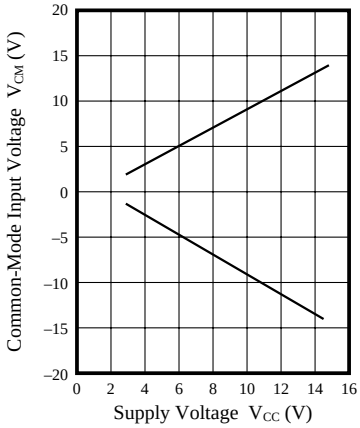
V_{ni} – f



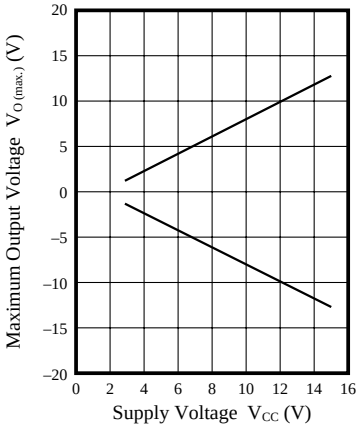
$V_{O\,(max.)}$ – f



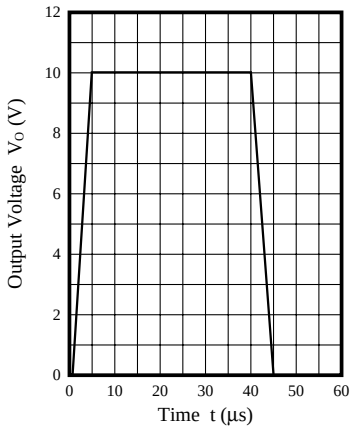
V_{CM}–V_{CC}



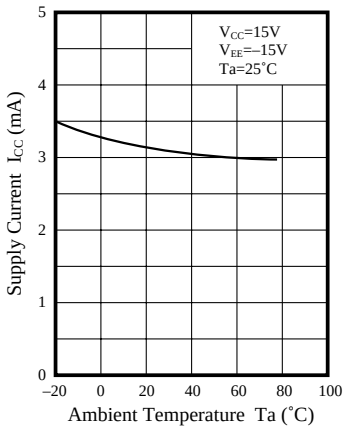
$V_{O\,(max.)}$ –V_{CC}



V_O – t



I_{CC}–Ta



■ Application Circuit

