

AN1358 (AN6562), AN1358S (AN6562S)

Dual Operational Amplifiers

Overview

The AN1358 (AN6562) and AN1358S (AN6562S) are dual operational amplifiers with two phase compensation circuits built-in, have a wide range of operating supply voltage, and can operate on a single power supply.

They have electrical characteristics equivalent to those of the conventional operational amplifiers, and are low-powered and suitable for application to various circuits.

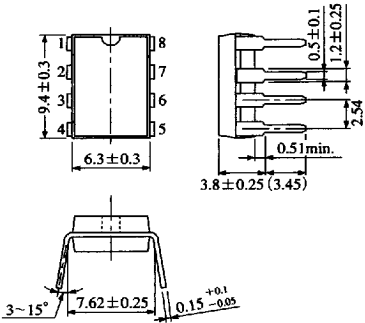
Note) The type numbers in () are old ones.

Features

- Built-in phase compensation circuits
- Wide range of input voltage : 0V to $V_{CC}-1.5V$
- Wide range of operating supply voltage :
Single power supply : 3 to 30V
Dual power supply : ± 1.5 to $\pm 15V$

AN1358 (AN6562)

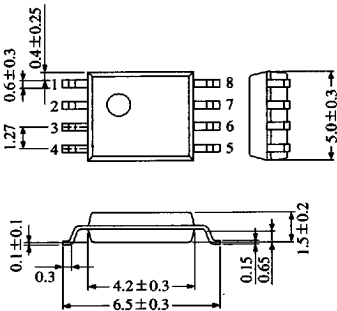
Unit : mm



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

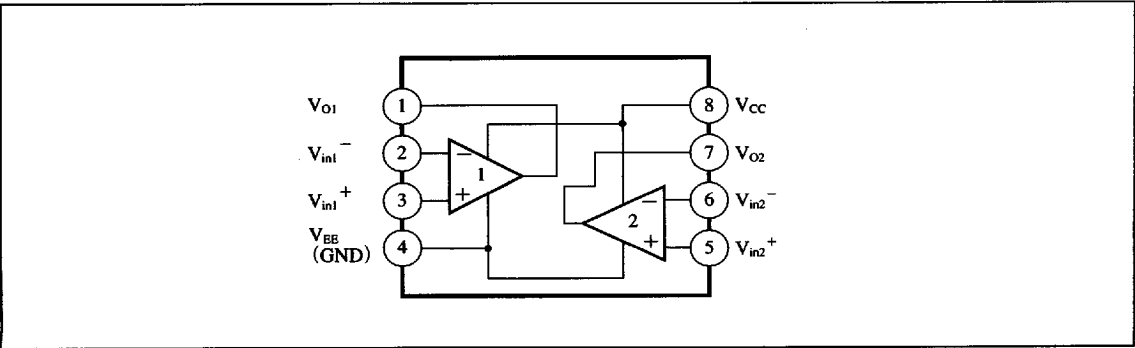
AN1358S (AN6562S)

Unit : mm



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

Block Diagram



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■ Absolute Maximum Ratings (Ta=25℃)

Parameter		Symbol	Rating	Unit
Supply voltage		V _{CC}	32	V
Differential input voltage		V _{ID}	32	V
Common-mode input voltage		V _{ICM}	−0.3 to +32	V
Output voltage		V _O	24	V
Power dissipation	AN1358 (AN6562)	P _D	350	mW
	AN1358S (AN6562S)		360	
Operating ambient temperature		T _{opr}	−20 to +75	℃
Storage temperature	AN1358 (AN6562)	T _{stg}	−55 to +150	℃
	AN1358S (AN6562S)		−55 to +125	

■ Recommended Operating Range (Ta=25℃)

Parameter	Symbol	Range
Operating supply voltage range	V _{CC}	Single power supply 3V to 30V
		Dual power supply ±1.5V to ±15V

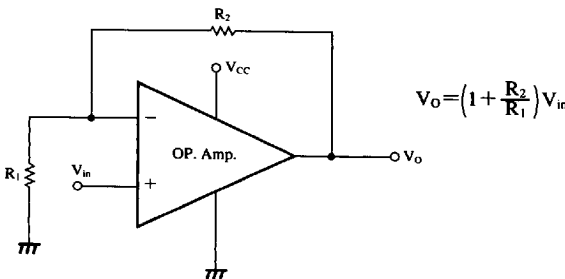
■ Electrical Characteristics (V_{CC}=5V, Ta=25℃)

Parameter	Symbol	Condition	min	typ	max	Unit
Input offset voltage	V _{I(offset)}	R _S =50Ω	—	2	7	mV
Input bias current	I _{bias}		—	—	250	nA
Input offset current	I _{IO}		—	—	50	nA
Common-mode input voltage width	V _{CM}		0	—	V _{CC} −1.5	V
Supply current	I _{CC}	R _L =∞	—	0.6	1.2	mA
Voltage gain	G _V	R _L ≥2kΩ	—	100	—	dB
Maximum output voltage	V _{O(max.)}	R _L ≥2kΩ	V _{CC} −1.5	—	—	V
Common-mode rejection ratio	CMR		65	85	—	dB
Supply voltage rejection ratio	SVR		65	100	—	dB
Channel separation	CS	f=1 to 20kHz	—	120	—	dB
Output source current	I _{O(source)}	V _{in} ⁺ =1V, V _{in} [−] =0V	20	40	—	mA
Output sink current	I _{SINK}	V _{in} ⁺ =0V, V _{in} [−] =1V	10	20	—	mA

Operational
Amplifiers

■ Application Circuit

Non-inverting Amplifier



■ Pin Descriptions

Pin No.	Pin name
1	Ch.1 output pin
2	Ch.1 inverting input pin
3	Ch.1 non-inverting input pin
4	Negative supply voltage (GND)
5	Ch.2 non-inverting input pin
6	Ch.2 inverting input pin
7	Ch.2 output pin
8	Positive supply voltage

■ 6932852 0012381 550 ■

Panasonic

■ Characteristics Curve

