



WS4558

LINEAR INTEGRATED CIRCUIT

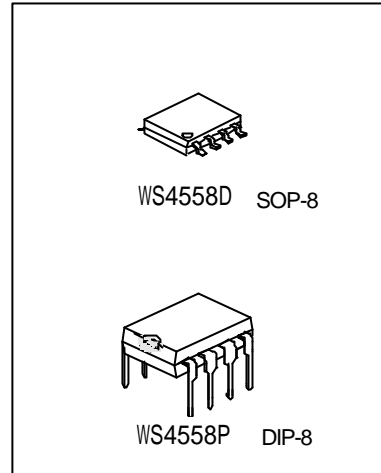
DUAL OPERATIONAL AMPLIFIER

DESCRIPTION

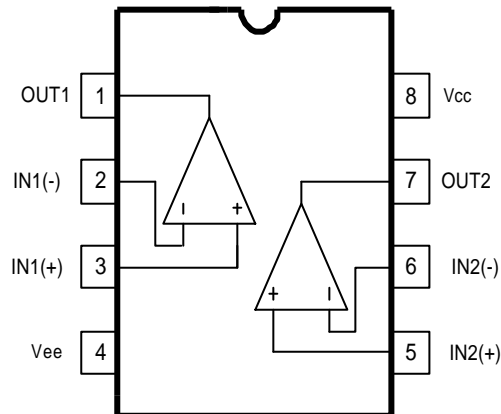
The WS4558 is a monolithic integrated circuit designed for dual operational amplifier.

FEATURES

- *No frequency compensation required
- *No latch-up
- *Large common mode and differential voltage range
- *Parameter tracking over temperature range
- *Gain and phase match between amplifiers
- *Internally frequency compensated
- *Low noise input transistors



PIN CONFIGURATIONS



Order Number:
WS4558P DIP8
WS4558D SO8



WS4558

LINEAR INTEGRATED CIRCUIT

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	V _{CC}	+22	V
Differential input voltage	V _{I(DIFF)}	+18	V
Power Dissipation DIP-8 SOP-8	P _D	600	mW
	P _D	400	mW
Input Voltage	V _I	+15	V
Operating Temperature	T _{OPR}	0 ~ +70	°C
Storage Temperature	T _{STG}	-65 ~ +150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C, V_{CC}=15V, V_{EE}=-15V)

PARAMETER	SYMBOL	TEST CONDUCTION	MIN	TYP	MAX	UNIT
Supply Current, all Amp, no load	I _{CC}			3.5	5.8	mA
Input offset voltage	V _{IO}	R _S ≤10kΩ		2	6	mV
Input offset current	I _{IO}			5	200	nA
Input bias current	I _{BIAS}			30	500	nA
Large signal voltage gain	G _V	V _{O(p-p)} =±10V, R _L ≤2kΩ	20	200		V/mV
Common Mode Input Voltage Range	V _{I(R)}		+12	+13		V
Common Mode Rejection Ratio	CMRR	R _S ≤10kΩ	70	90		dB
Supply Voltage Rejection Ratio	PSRR	R _S ≤10kΩ	76	90		dB
Output Voltage swing	V _{O(p-p)}	R _L ≥10kΩ	+12	+14		V
Power Consumption	P _C			70	170	mW
Slew Rate	SR	V _i =±10V, R _L ≥2kΩ, C _L ≤100pF	1.2	2.2		V/μs
Rise Time	T _{RIS}	V _i =±20mV, R _L ≥2kΩ, C _L ≤100pF		0.3		μs
Overshoot	OS	V _i =±20mV, R _L ≥2kΩ, C _L ≤100pF		15		%
Input Resistance	R _i		0.3	2		MΩ
Output Resistance	R _o			75		Ω
Total Harmonic Distortion	THD	f=1kHz, A _v =20dB, R _L =2kΩ, V _o =2V _{pp} , C _L =100pF		0.008		%
Channel Separation	V _{o1} /V _{o2}			120		dB