

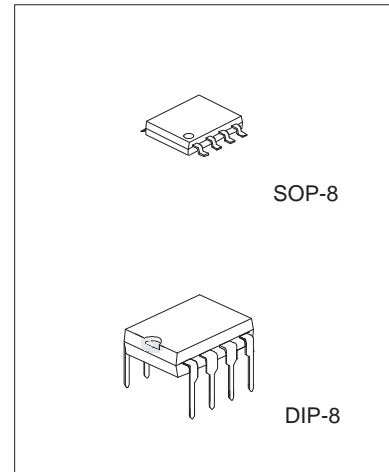
Dual Operational Amplifier

DESCRIPTION

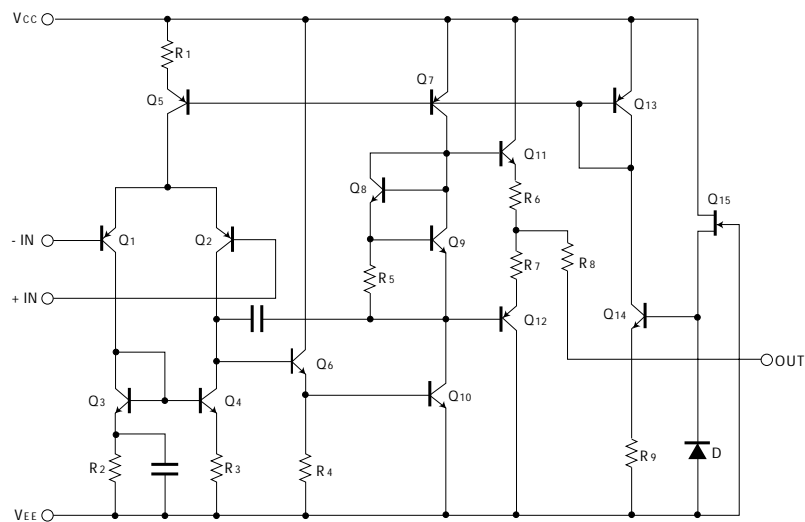
The TA4558 is a high performance monolithic dual operational amplifier

FEATURES

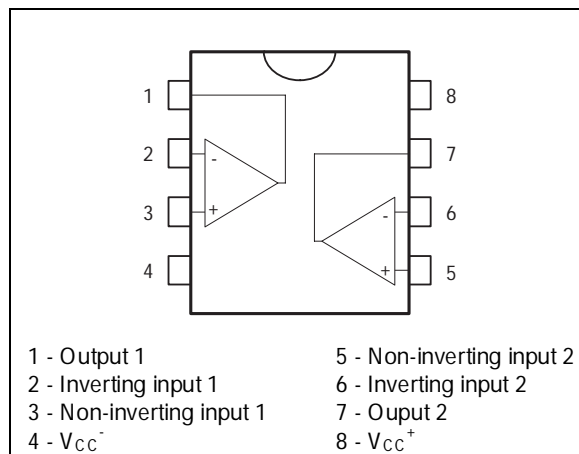
- No frequency compensation required
- No latch -up
- Large common mode and differential voltage range
- Parameter tracking over temperature range
- Gain and phase match between amplifiers
- Internally frequency compensated
- Low noise input transistors
- Pin to pin compatible with MC1458 / LM358



BLOCK DIAGRAM (ONE SECTION ONLY)



PIN CONFIGURATION



ORDERING INFORMATION

Device	Operating Temperature Range	Package
TA4558	T _A = 0°C to +70°C	PDIP-8
TA4558	T _A = 0°C to +70°C	SOP-8

MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	V _{cc}	±22	V
Differential Input Voltage	V _{I(DIFF)}	±18	V
Input Voltage	V _I	±15	V
Operating Temperature	TOPR	0 ~ +70	°C
Power Dissipation	P _D	600 400	mW
Storage Temperature Range	TSTG	-65 ~ +150	°C

ELECTRICAL CHARACTERISTICS (V_{cc}=15.0V, V_{EE}= -15V, T_A=25° C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDUCTION	MIN	TYP	MAX	UNIT
Supply Current, all Amp, no load	I _{cc}			2.3	4.5	mA
Input offset voltage	V _{io}	R _s <10k		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 2k	20	200		V/mV
Common Mode Input Voltage Range	V _{I(R)}		±12	±13		V
Common Mode Rejection Ratio	CMRR	R _s 10k	70	90		dB
Supply Voltage Rejection Ratio	PSRR	R _s 10k	76	90		dB
Output Voltage swing	V _{o(p-p)}	R _L 10k		±12	±14	V
Power Consumption	P _c			70	170	mW
Slew Rate	SR	V _i = ±10V, R _L 2k , C _L 100pF	1.2	2.2		V/μs
Rise Time	T _{RISE}	V _i = ±20mV, R _L 2k , C _L 100pF		0.3		μs
Overshoot	OS	V _i = ±20mV, R _L 2k , C _L 100pF		15		%
Input Resistance	R _i		0.3	2		M
Output Resistance	R _o			75		
Total Harmonic Distortion	THD	f=1kHz, A _v =20dB, R _L =2k , V _o =2V _{pp} , C _L =100pF		0.008		%
Channel Separation	V _{o1} /V _{o2}			120		dB

FREQUENCY CHARACTERISTICS (T_a=25° C, V_{cc}=15V, V_{ee}=-15V)

PARAMETER	SYMBOL	TEST CONDUCTION	MIN	TYP	MAX	UNIT
Unity Gain Bandwidth	BW		2.0	2.8		MHz

TYPICAL PERFORMANCE CHARACTERISTICS

