

DUAL OPERATIONAL AMPLIFIER—YD4558

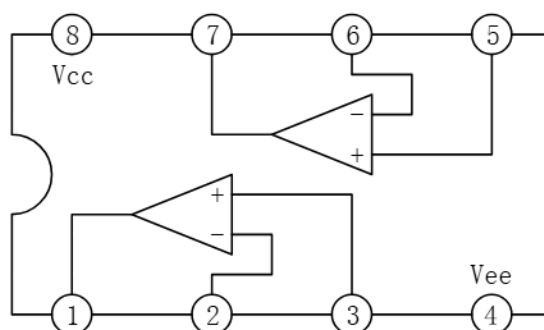
DESCRIPTION

The YD4558 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 cover temperature range
- *Gain and phase match between amplifiers
- *Internally frequency compensated
- *Low noise input transistors ($V_{in}=2.5 \mu V$)

BLOCK DIAGRAM



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ABSOLUTE MAXIMUM RATINGS ($T_{amb}=25^{\circ}\text{C}$)

PARAMETER		SYMBOL	VALUE	UNIT
Supply Voltage		V_{CC}	± 18	V
Differential Input Voltage		$V_{I(DIFF)}$	± 30	V
Power Dissipation	DIP8	P_D	500	mW
	SOP8		250	
Input Voltage		V_I	± 15	V
Operating Temperature		T_{opr}	$-20\sim+75$	$^{\circ}\text{C}$
Storage Temperature		T_{stg}	$-40\sim+125$	$^{\circ}\text{C}$

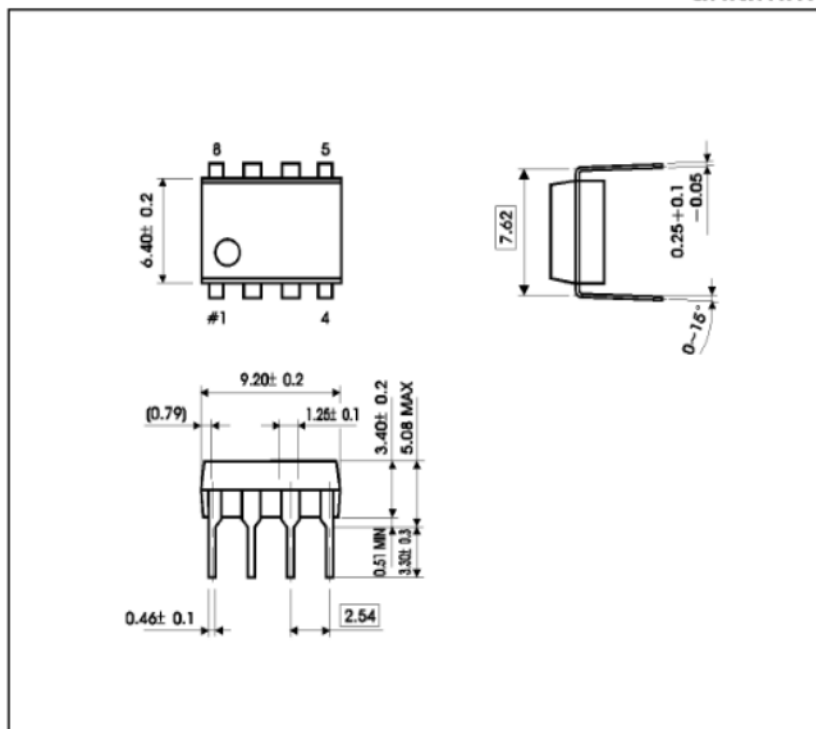
ELECTRICAL CHARACTERISTICS(V_{CC}=15V, V_{EE}=-15V, T_{amb}=25 $^{\circ}\text{C}$, Unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Supply Current	I_{CC}			4.0	6.0	mA
Input Offset Voltage	V_{IO}	$R_s < 10\text{k}\Omega$		0.5	6	mV
Input Offset Current	I_{IO}			5	200	nA
Input Bias Current	I_{BIAS}			25	500	nA
Large Signal Voltage Gain	A_{VO}	$V_{o(p-p)}=10\text{V}$, $R_L < 2\text{k}\Omega$	86	100		dB
Common Mode Input Voltage Range	V_{ICM}		± 12	± 14		V
Common Mode Rejection Ratio	K_{CMR}	$R_s < 10\text{k}\Omega$	70	90		dB
Supply Voltage Rejection Ratio	K_{SVR}	$R_s < 10\text{k}\Omega$	76.5	90		dB
Output Voltage Swing	$V_{o(p-p)}$	$R_s > 10\text{k}\Omega$		± 12	± 14	V
Slew Rate	SR	$V_i=20\text{mV}$, $R_L > 2\text{k}\Omega$, $C_L < 100\text{p}$		1.0		V/ μs
Rise Time	T_{RIS}	$V_i=20\text{mV}$, $R_L > 2\text{k}\Omega$, $C_L < 100\text{p}$		0.3		μs
Overshoot	OS	$V_i=20\text{mV}$, $R_L > 2\text{k}\Omega$, $C_L < 100\text{p}$		15		%

OUTLINE DRAWING

DIP-8

unit:mm



SOP-8

unit:mm

