
DUAL OPERATIONAL AMPLIFIER—YD4558

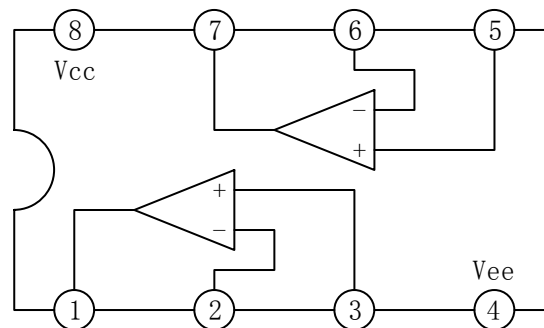
DESCRIPTION

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 (Tamb=25°C)

| PARAMETER | | SYMBOL | VALUE | UNIT |
|----------------------------|------|----------|----------|------|
| Supply Voltage | | Vcc | ± 18 | V |
| Differential Input Voltage | | VI(DIFF) | ± 30 | V |
| Power Dissipation | DIP8 | Pd | 500 | mW |
| | SOP8 | | 250 | |
| Input Voltage | | VI | ± 15 | V |
| Operating Temperature | | Topr | -20~+75 | °C |
| Storage Temperature | | Tstg | -40~+125 | °C |

ELECTRICAL CHARACTERISTICS

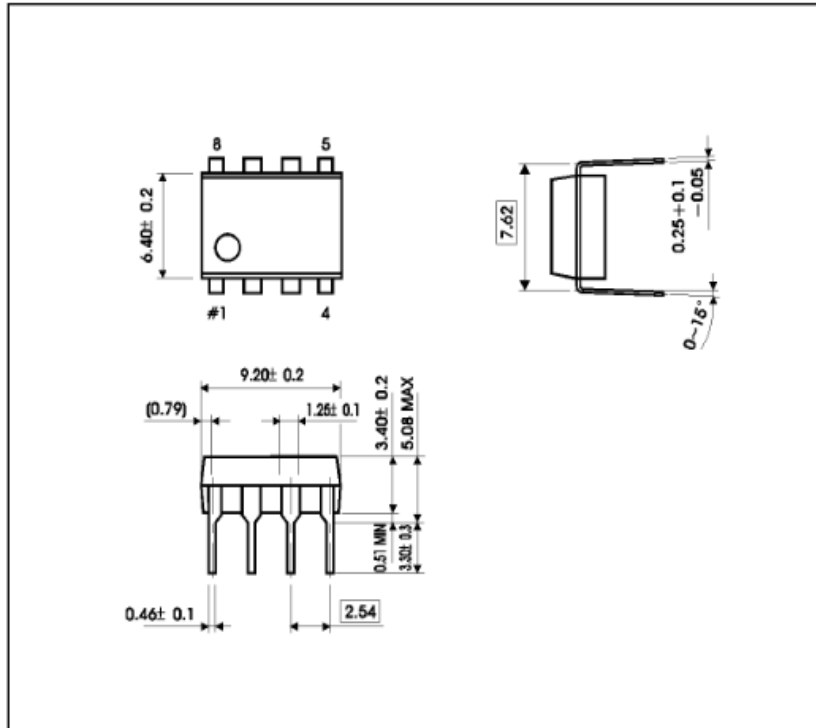
(Vcc=15V, Vee=-15V, Tamb=25°C, Unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITION | MIN | TYP | MAX | UNIT |
|---------------------------------|---------|----------------------------------|------|------|------|------|
| Supply Current | ICC | | | 4.0 | 6.0 | mA |
| Input Offset Voltage | VIO | Rs < 10k Ω | | 0.5 | 6 | mV |
| Input Offset Current | IIO | | | 5 | 200 | nA |
| Input Bias Current | IBIAS | | | 25 | 500 | nA |
| Large Signal Voltage Gain | AVO | Vo(p-p)=10V, RL < 2k Ω | 86 | 100 | | dB |
| Common Mode Input Voltage Range | VICM | | ± 12 | ± 14 | | V |
| Common Mode Rejection Ratio | KCMR | Rs < 10k Ω | 70 | 90 | | dB |
| Supply Voltage Rejection Ratio | KSVR | Rs < 10k Ω | 76.5 | 90 | | dB |
| Output Voltage Swing | Vo(p-p) | Rs > 10k Ω | | ± 12 | ± 14 | V |
| Slew Rate | SR | Vi=20mV, RL > 2k Ω, CL < 100p | | 1.0 | | V/μs |
| Rise Time | TRIS | Vi=20mV, RL > 2k Ω, CL < 100p | | 0.3 | | μs |
| Overshoot | OS | Vi=20mV, RL > 2k Ω, CL < 100p | | 15 | | % |

OUTLINE DRAWING

DIP-8

unit:mm



SOP-8

unit:mm

