

DUAL OPERATIONAL AMPLIFIER—YD4556

DESCRIPTION

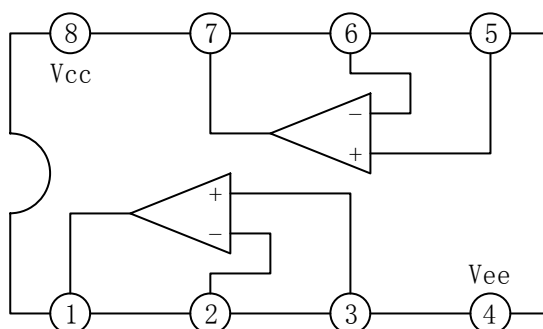
The YD4556 integrated circuit is a high-gain, high output current dual operational amplifier capable of driving $\pm 70\text{mA}$ into $150\ \Omega$ loads ($\pm 10.5\text{V}$ output voltage), and operating low supply voltage ($V_{\text{CC}}/V_{\text{EE}} = \pm 2\text{V}$).

The YD4556 combines many of the features of the popular YD4558 as well as having the capability of driving $150\ \Omega$ loads. In addition, the wide band-width, low noise, high slew rate and low distortion of the YD4556 make it ideal for many audio, telecommunications and instrumentation application.

FEATURES

- *Operating Voltage ($\pm 2\text{V} \sim \pm 18\text{V}$)
- *High Output Current ($I_{\text{O}} = 70\text{mA}$)
- *Slew Rate ($3\text{V}/\mu\text{s}$ typ.)
- *Gain Band Width Product (8MHz typ.)
- *Package Outline: DIP8, SOP8
- *Bipolar Technology

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	700	mW
	SOP8		250	
D terminal Output Voltage		V_I	± 15	V
Operating Temperature		T_{opr}	$-20\sim+75$	$^{\circ}\text{C}$
Storage Temperature		T_{stg}	$-40\sim+150$	$^{\circ}\text{C}$

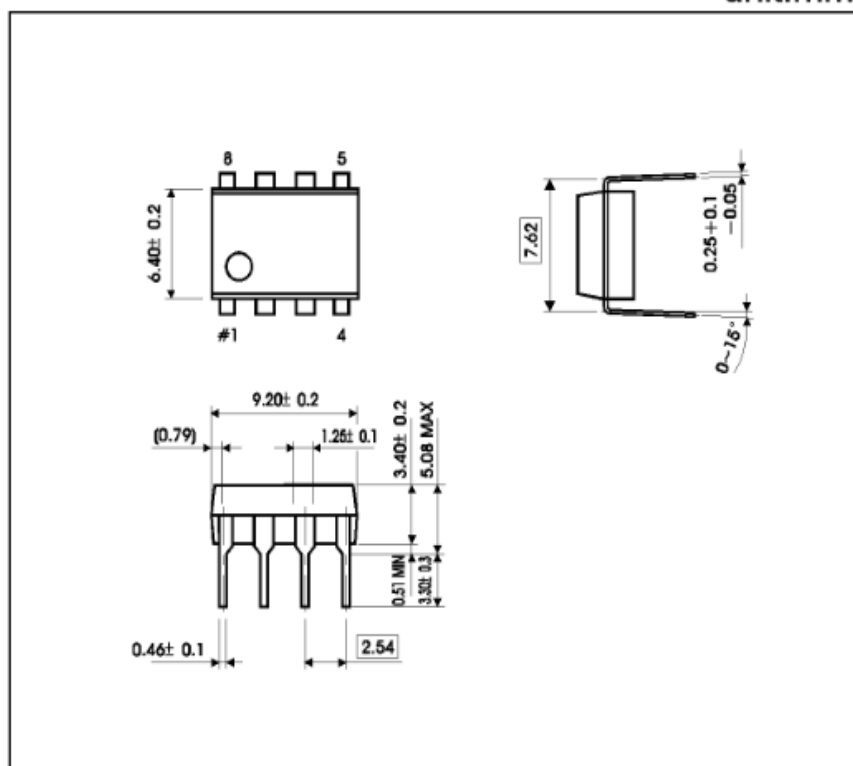
ELECTRICAL CHARACTERISTICS(V_{CC}=15V, V_{EE}=-15V, T_{amb}=25 $^{\circ}\text{C}$, Unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Operating Current	I_{CC}			9.0	12.0	mA
Input Offset Voltage	V_{IO}	$R_S \leq 10\text{k}\Omega$		0.5	6.0	mV
Input Offset Current	I_{IO}			5	60	nA
Input Bias Current	I_{BIAS}			50	500	nA
Input Resistance	R_{IN}		0.3	5		M Ω
Large Signal Voltage Gain	A_{VO}	$V_O = \pm 10\text{V}, R_L \geq 2\text{k}\Omega$	86	100		dB
Common Mode Input Voltage Range	V_{ICM}		± 13.5	± 14		V
Common Mode Rejection Ratio	K_{CMR}	$R_S \leq 10\text{k}\Omega$	70	90		dB
Supply Voltage Rejection Ratio	K_{SVR}	$R_S \leq 10\text{k}\Omega$	76.5	90		dB
Maximum Output Voltage Swing 1	V_{OM1}	$R_L \geq 2\text{k}\Omega$	± 12	± 13.5		V
Maximum Output Voltage Swing 2	V_{OM2}	$R_L \geq 150\Omega$	± 10.5	± 11		V
Slew Rate	SR	$A_V=1, R_L=2\text{k}\Omega$		3		V/ μs
Gain Bandwidth Product	GB			8		MHz

OUTLINE DRAWING

DIP-8

unit:mm



SOP-8

unit:mm

