DUAL OPERATIONAL AMPLIFIER

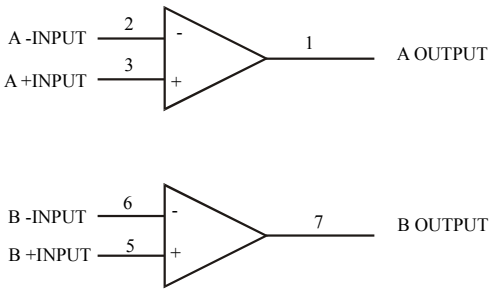
GENERAL DESCRIPTION

The HG4560 integrated circuit is a high-gain, wide bandwidth, dual operational amplifier capable of driving 20 V peak-to-peak into 400 Ω loads. The HG4560 combines many of the features of the HG4558 as well as providing the capability of wider bandwidth, and higher slew rate make the HG4560 ideal for active filters, data and telecommunications, and many instrumentation applications.

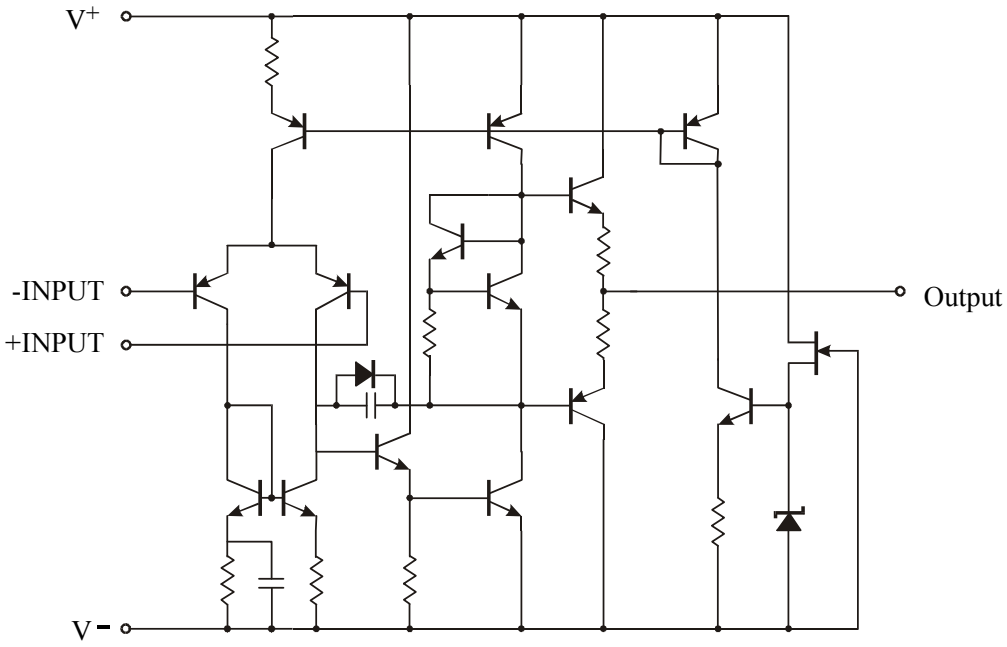
FEATURES

* Operating Voltage (±4 V ~ ±18 V)
* Wide Gain Bandwidth Product (10 MHz typ.)
* Slew Rate (4 V/μs typ.)
* Bipolar Technology

BLOCK DIAGRAM



EQUIVALENT CIRCUIT (1/2 Show)



ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings	Unit
V^+/V^-	Supply Voltage	±18	V
V_{ID}	Differential Input Voltage	30	V
V_{IC}	Input Voltage	±15*	V
Topr	Operation Temperature Range	-25 ~ +75	°C
Tstg	Storage Temperature Range	-60 ~ +125	°C

* For supply voltage less then ±15 V, the absolute maximum input voltage is equal to the supply voltage.

ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Test Condition	Min	Max	Unit
V_{IO}	Input Offset Voltage	$R_S \leq 10$ kΩ	-	6	mV
I_{IO}	Input Offset Current		-	200	nA
I_B	Input Bias Current		-	500	nA
R_{IN}	Input Resistance		0.3	-	MΩ
A_V	Large Signal Voltage Gain	$R_L \geq 2$ kΩ, $V_O = \pm 10$ V	86	-	dB
V_{OM1}	Maximum Output Voltage Swing 1	$R_L \geq 2$ kΩ	±12	-	V
V_{OM2}	Maximum Output Voltage Swing 2	$I_O = 25$ mA	±10	-	V
V_{ICM}	Input Common Mode Voltage Range		±12	-	V
CMR	Common Mode Rejection Ratio	$R_S \leq 10$ kΩ	70	-	dB
SVR	Supply Voltage Rejection Ratio	$R_S \leq 10$ kΩ	76.5	-	dB
I_{CC}	Operating Current		-	5.7	mA
SR	Slew Rate	$R_L \geq 2$ kΩ	3	5	V/μs

Important statement:

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