

DUAL OPERATIONAL AMPLIFIER

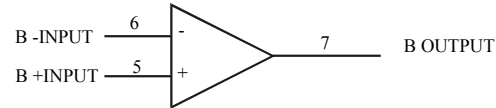
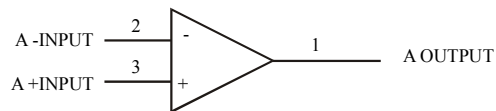
GENERAL DESCRIPTION

The JRC4560 integrated circuit is a high-gain, wide bandwidth, dual operational amplifier capable of driving 20 V peak-to-peak into 400 Ω loads. The JRC4560 combines many of the features of the JRC4558 as well as providing the capability of wider bandwidth, and higher slew rate make the JRC4560 ideal for active filters, data and telecommunications, and many instrumentation applications.

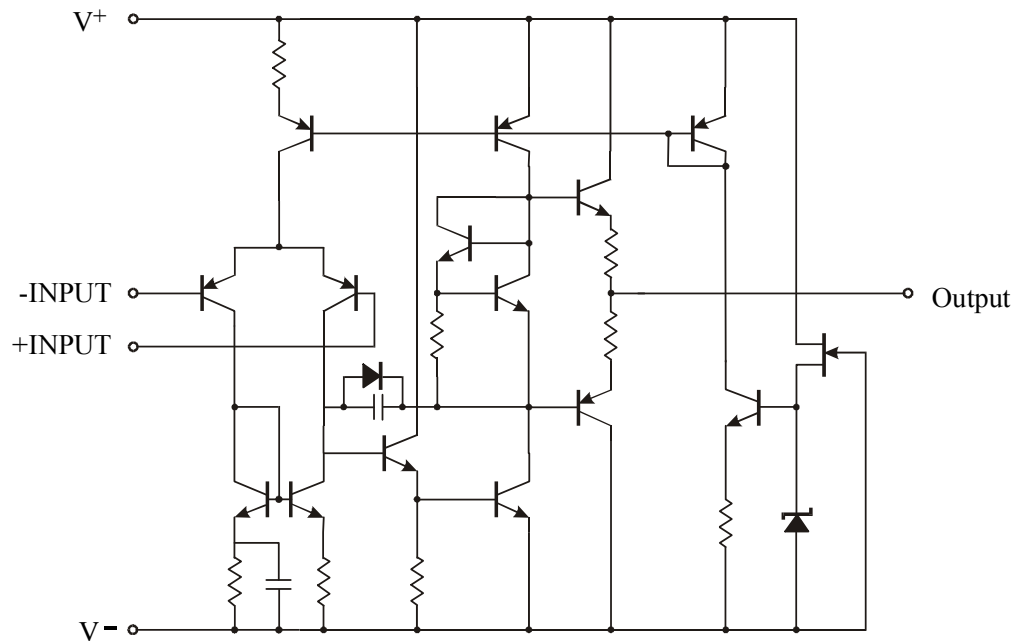
FEATURES

- Operating Voltage ($\pm 4\text{ V} \sim \pm 18\text{ V}$)
- 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)

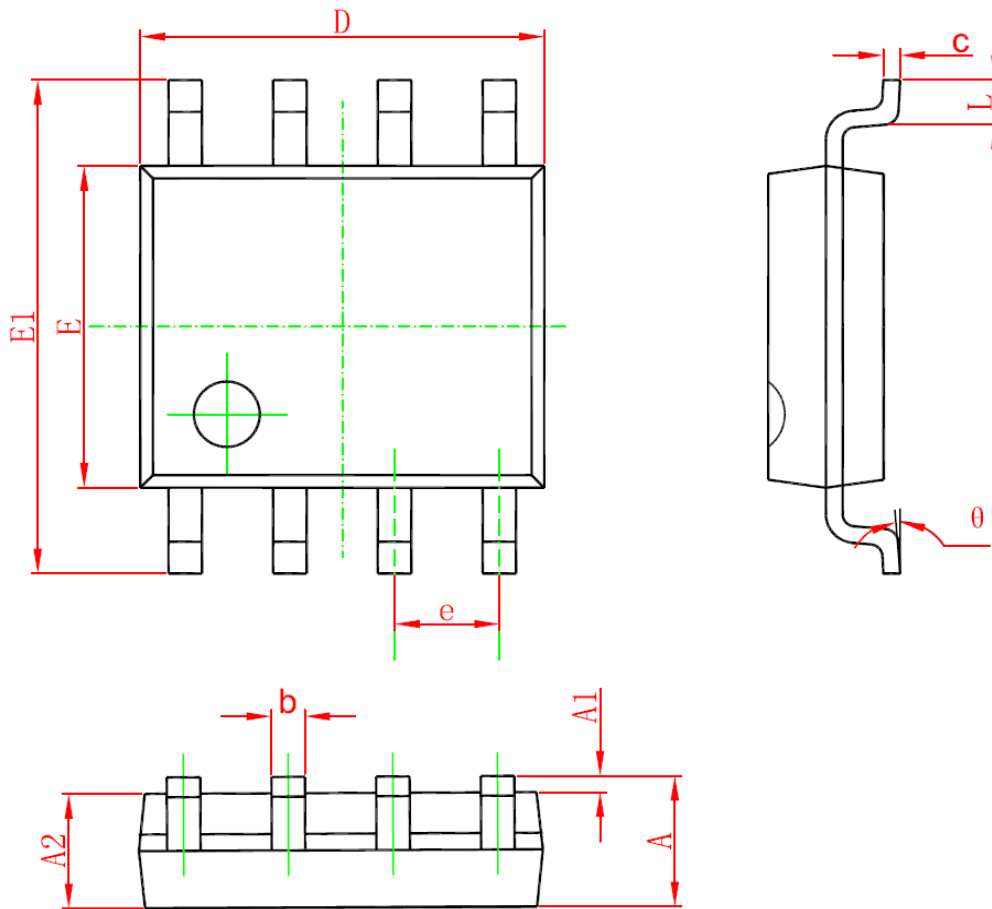
Symbol	Parameter	Ratings	Unit
V ⁺ /V ⁻	Supply Voltage	±18	V
V _{ID}	Differential Input Voltage	30	V
V _{IC}	Input Voltage	±15*	V
Topr	Operation Temperature Range	-25 ~ +75	°C
Tstg	Storage Temperature Range	-60 ~ +125	°C

* For supply voltage less than ±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 ≤ 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 ≥ 2 kΩ, V _o = ±10 V	86	-	dB
V _{OM1}	Maximum Output Voltage Swing 1	R _L ≥ 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 ≤ 10 kΩ	70	-	dB
SVR	Supply Voltage Rejection Ratio	R _s ≤ 10 kΩ	76.5	-	dB
I _{CC}	Operating Current		-	5.7	mA
SR	Slew Rate	R _L ≥ 2 kΩ	3	5	V/μs

SOP8 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.006	0.010
D	4.700	5.100	0.185	0.200
E	3.800	4.000	0.150	0.157
E1	5.800	6.200	0.228	0.244
e	1.270 (BSC)		0.050 (BSC)	
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°