

Monolithic Linear IC

SANYO	No.1967B	LA6082D,6082S
		J-FET Input Dual Operational Amplifiers

The LA6082 is a J-FET input dual operational amplifier. Application areas include general-purpose control equipment, measuring equipment (very low current measurement, long-integrating circuit, sample & hold circuit, impedance converter, etc.).

Features

- . High slew rate
- . High input impedance
- . Low input bias current
- . Low input offset current
- . No phase compensation required

Maximum Ratings at Ta=25°C

		unit
Maximum Supply Voltage	V_{CC}/V_{EE}	± 18 V
Differential Input Voltage	V_{ID}	± 30 V
Common-Mode Input Voltage	V_{IN} (Note)	± 15 V
Allowable Power Dissipation	P_d max	570 mW
Operating Temperature	T_{opr}	-30 to +85 °C
Storage Temperature	T_{stg}	-55 to +125 °C

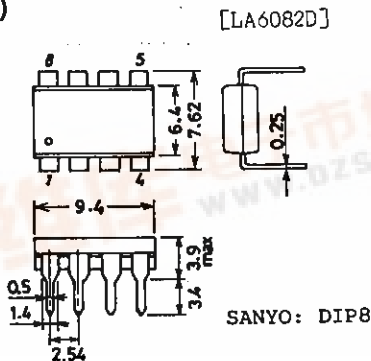
(Note) Allowable in the range of supply voltage. The above value is for $V_{CC}=+15V$; $V_{EE}=-15V$.

Operating Characteristics at Ta=25°C, $V_{CC}=+15V$, $V_{EE}=-15V$

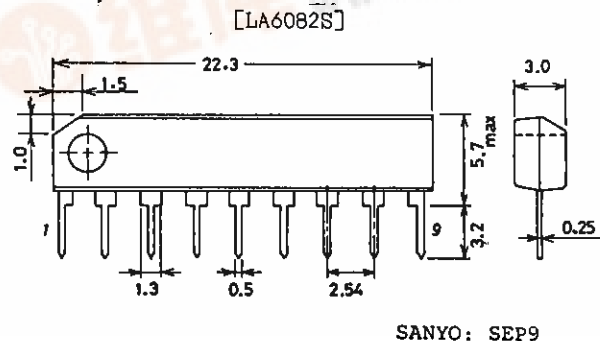
		min	typ	max	unit
Input Offset Voltage	V_{IO} $R_S=50\text{ohms}$	5.0	15.0		mV
Input Offset Current	I_{IO}		5	200	pA
Input Bias Current	I_B		30	400	pA
Common-Mode Input Voltage Range	V_{ICM}	± 10			V
Common-Mode Rejection Ratio	CMR	70	76		dB
Large Amplitude Voltage Gain	VG $R_L \geq 2\text{kohms}, V_o = \pm 10V$	25	200		V/mV
Maximum Output Voltage	V_{opp1} $R_L \geq 10\text{kohms}$	± 12	± 13.5		V
	V_{opp2} $R_L \geq 2\text{kohms}$	± 10	± 12		V

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Package Dimensions 3001B-D81C
(unit: mm)



Package Dimensions 3017B-S91C
(unit: mm)



LA6082D,6082S

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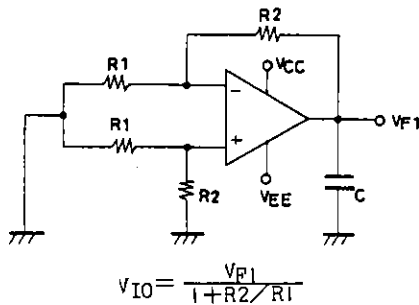
		min	typ	max	unit
Supply Voltage Rejection Ratio	SVR	70	76		dB
Supply Current	I_{CC}		4	5.6	mA
Gain-Bandwidth Product	f_T		3		MHz
Equivalent Input Noise Voltage	V_{NI}		4		μ Vrms
Input Resistance	r_i		10^{12}		ohm
Channel Separation	C·S		120		dB
Slew Rate	S·R		13		V/us

$R_L = \infty$
 $A_V = 1$
 $R_S = 100\text{ohms}$,
 $f = 10\text{Hz to } 10\text{kHz}$

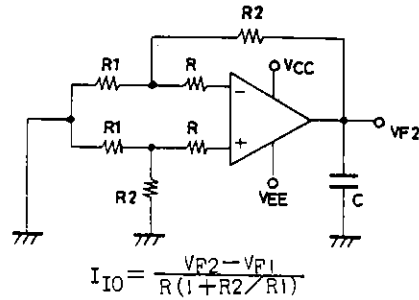
$R_L = 2\text{kohms}$, $C_i = 100\text{pF}$,
 $A_V = 1$, $V_{IN} = 10\text{V}$

Test Circuits

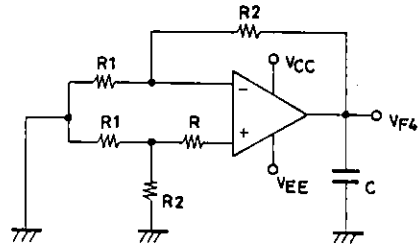
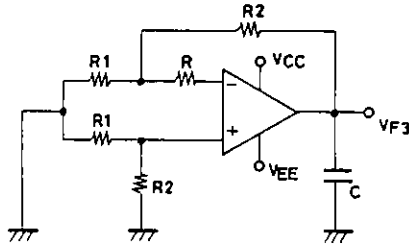
1. Input Offset Voltage V_{IO}



2. Input Offset Current I_{IO}

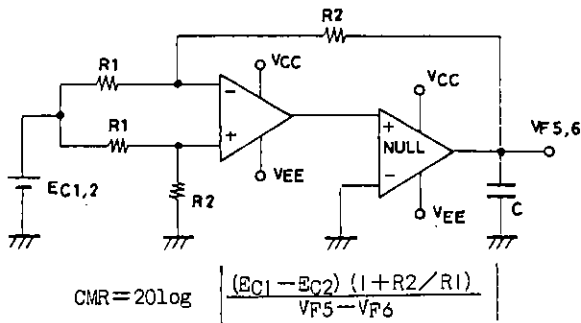


3. Input Bias Current I_B

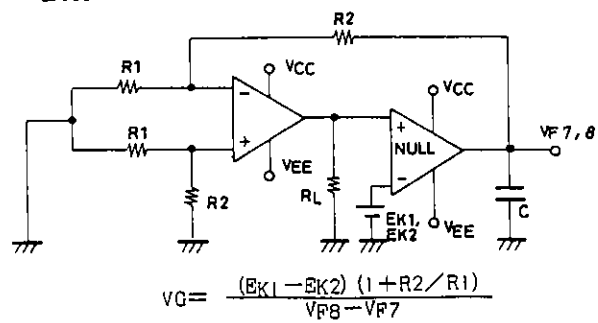


$$I_B = \frac{V_{F4} - V_{F3}}{2R(1 + R2/R1)}$$

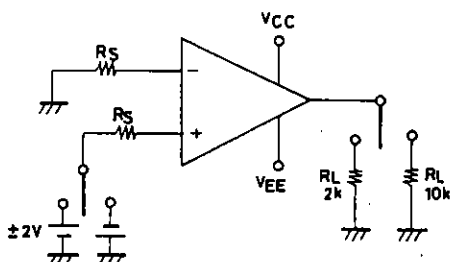
4. Common-Mode Rejection Ratio CMR
Common-Mode Input Voltage Range V_{ICM}



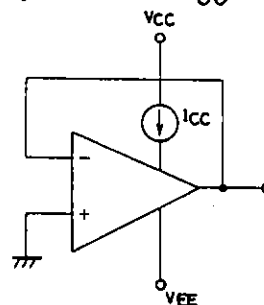
5. Voltage Gain V_G



6. Maximum Output Voltage V_{opp}

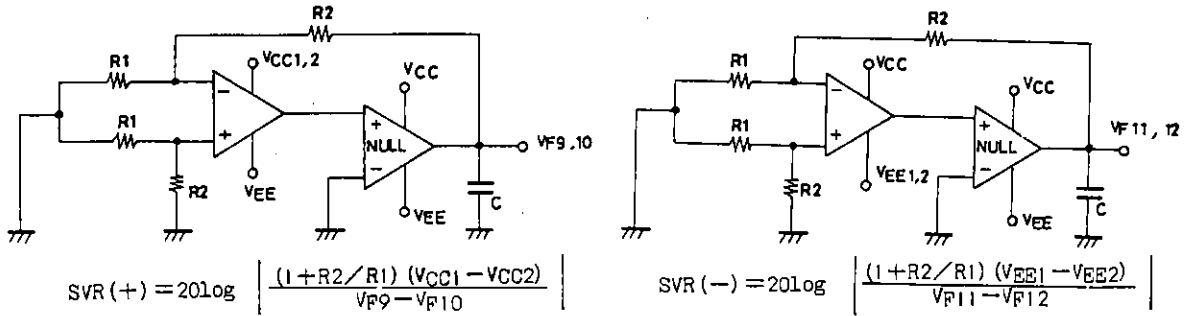


7. Supply Current I_{CC}

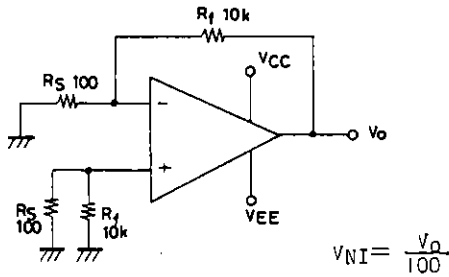


Unit (resistance: Ω)

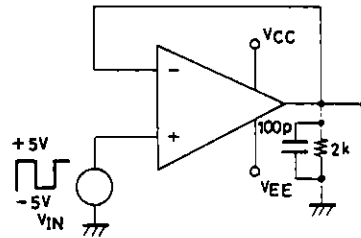
8. Supply Voltage Rejection Ratio SVR



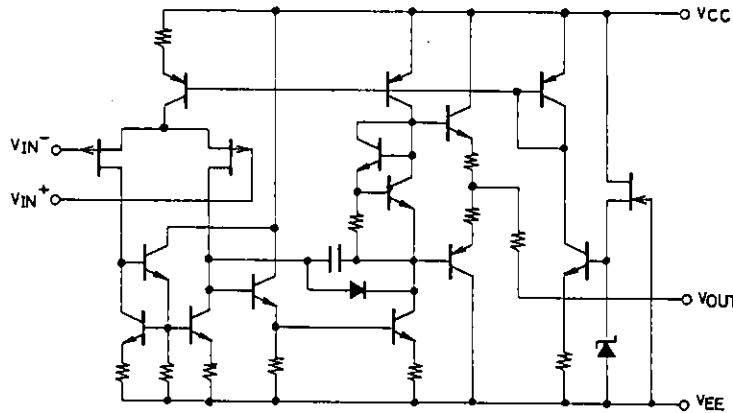
9. Equivalent Input Noise Voltage V_{NI} 10. Slew Rate SR



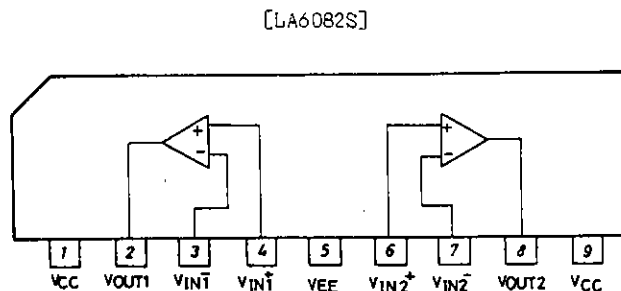
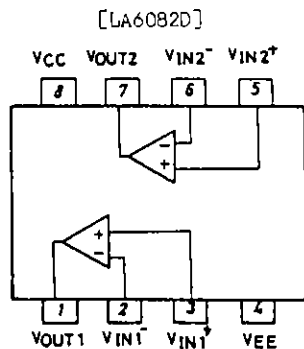
Equivalent Circuit



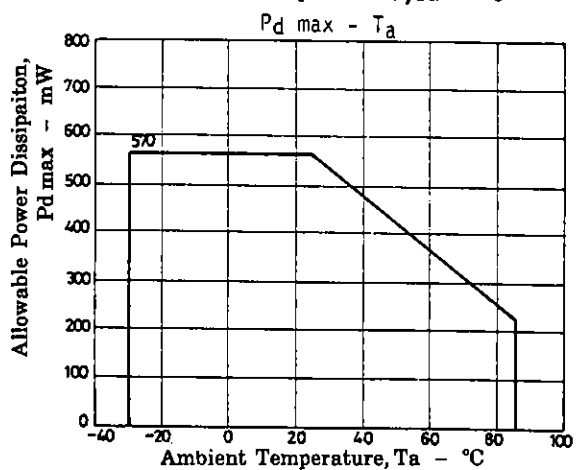
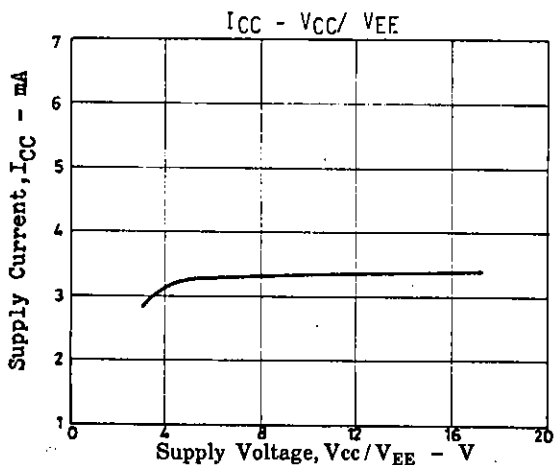
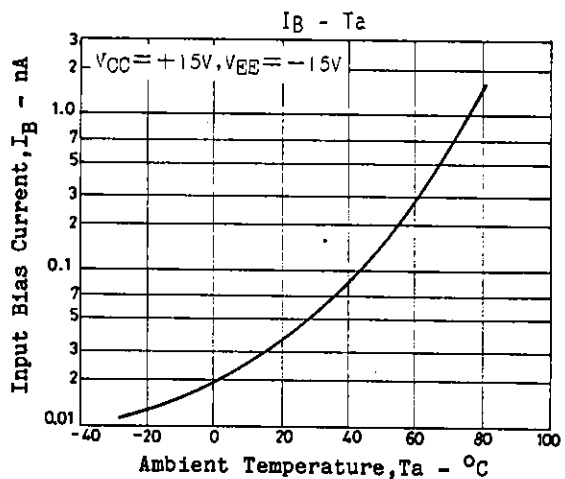
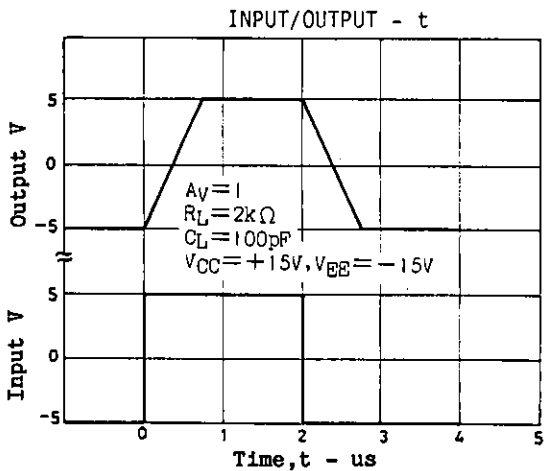
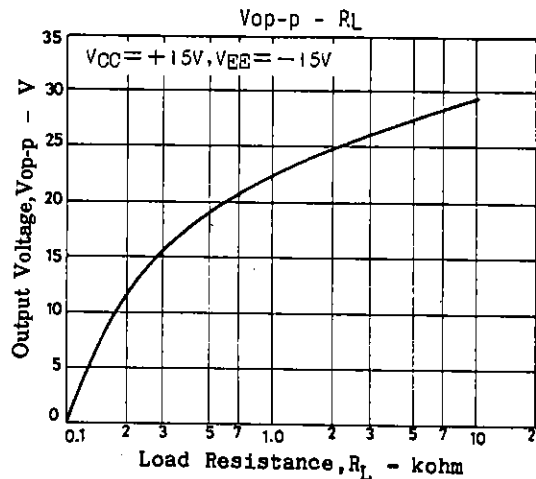
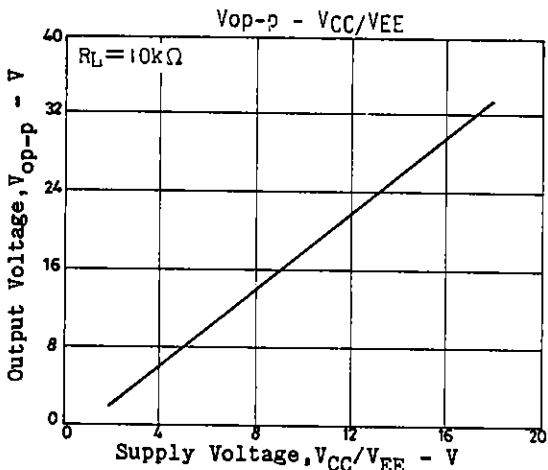
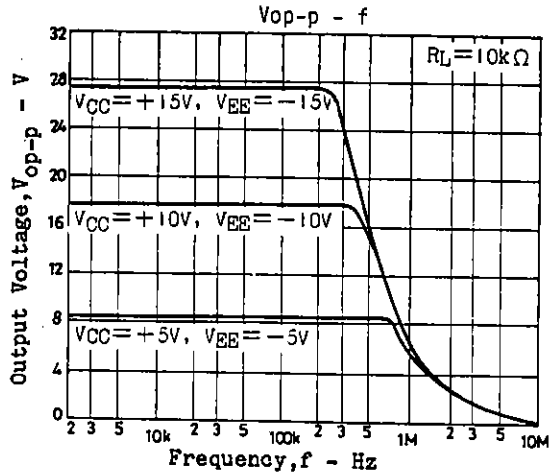
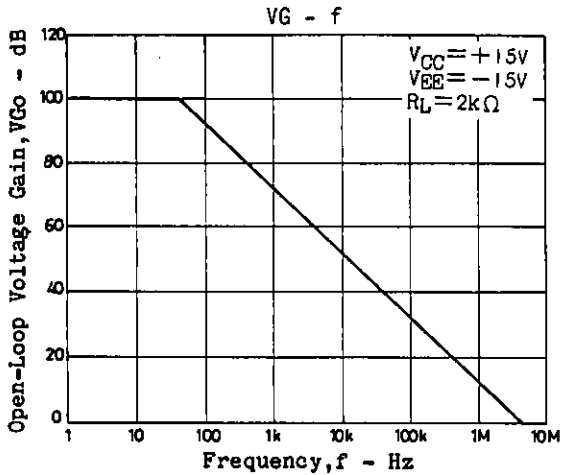
Unit (resistance:Ω capacitance:F)



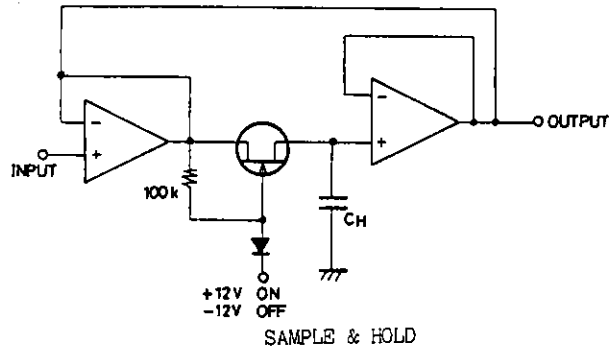
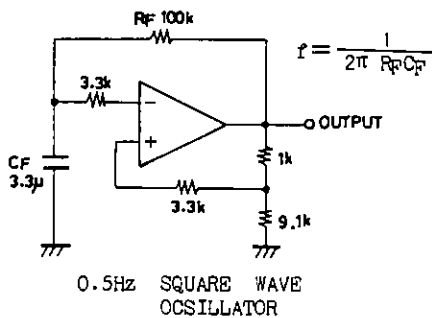
Pin Assignment



LA6082D, 6082S



Application Circuits

Unit (resistance: Ω , capacitance: F)

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