Ordering number : EN 2064E

SANYO

No.2064B

LA6462D,6462S,6462M

Monolithic Linear IC

High-Performance Dual Operational Amplifiers

The LA6462D,S,M consist of two indepedent, internally phase compensated operational amplifiers. They feature low noise, high speed, wide band. Application areas include audio preamplifiers, active filters, and various electronic circuits.

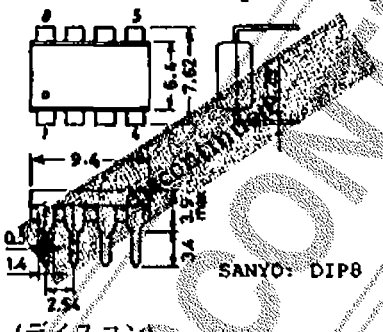
Features

- On-chip phase compensation circuit (Gain≧10dB recommended)
- Low noise: Equivalent input noise voltage
  0.70uV typ(Rg=2.2kohms RIAA,DIN Audio).
  0.50uV typ(Rg=300ohms,IHF-A).
- High speed: Slew rate 4.0V/us typ.
- Wide band: Gain-bandwidth product 6MHz typ.

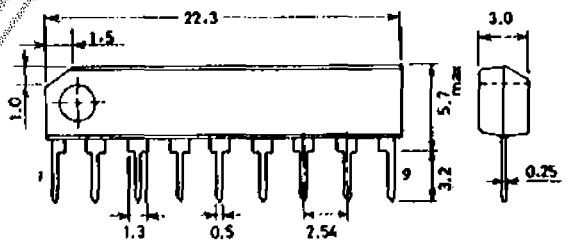
Maximum Ratings at Ta=25°C

				unit
Maximum Supply Voltage	V_{CC}/V_{EE}		±18	V
Differential Input Voltage	V_{ID}		±30	V
Common-Mode Input Voltage	V_{IN}		±15	V
Allowable Power Dissipation	Pdmax	LA6462D,S	500	mW
		LA6462M	300	mW
Operating Temperature	Topr		-20 to +75	°C
Storage Temperature	Tstg		-40 to +125	°C

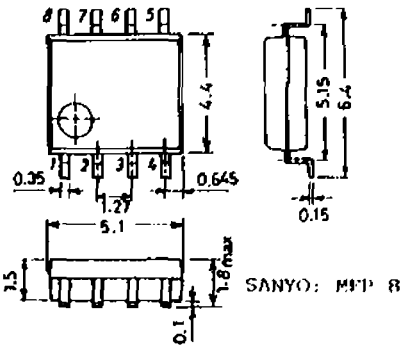
Package Dimensions 3001B-D8IC
(unit : mm) [LA6462D]



Package Dimensions 3017B-S9IC
(unit : mm) [LA6462S]



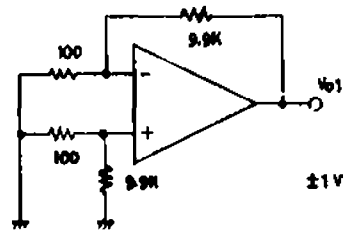
Package Dimensions 3032B-M8IC
(unit : mm) [LA6462M]



Operating Characteristics at Ta=25°C, V_{CC}=15V, V_{EE}=-15V			min	typ	max	unit
Input Offset Voltage	V_{IO}	Rs≦10kohms		0.3	6.0	mV
Input Offset Current	I_{IO}			5	200	nA
Input Bias Current	I_B			200	500	nA
Common-Mode Input Voltage	V_{ICM}		±12	±14		V
Common-Mode Rejection Ratio	CMRR		70	90		dB
Voltage Gain	VGo	R_L≧2kohms, Vo=±10V	96	110		dB
Maximum Output Voltage	Vo(1)	R_L≧10kohms		±14		V
	Vo(2)	R_L≧2kohms		±13		V
Slew Rate	SR	VG=0, R_L≧2kohms		4.0		V/μs
Equivalent Input Noise Voltage	$V_{NI(1)}$	Rg=2.2kohms, RIAA DIN Audio Weight		0.70		μV
	$V_{NI(2)}$	Rg=300ohms, IHF-A Weight		0.50		μV
Current Dissipation	I_{CC}			6.0		mA
Power Dissipation	Pd			180		mW
Gain-Bandwidth Product	f_T			6		MHz

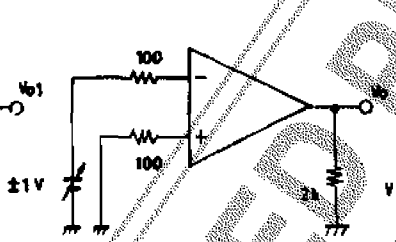
Test Circuits

(1) VIO, SVRR



• VIO : VCC/VEE=±15V
• SVRR : VCC=15, 5V / VEE=-5, -15V

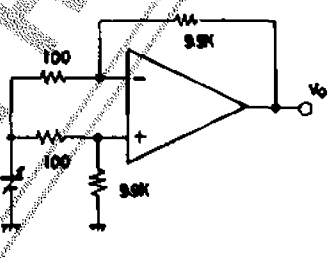
(2) Vo



• VIO = Vo1/100

$$\left.\begin{matrix}SVR(+)\\SVR(-)\end{matrix}\right| = \left|\frac{\Delta Vo1}{100\times 10V}\right|$$

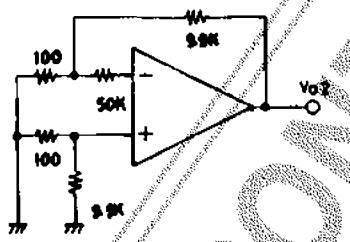
(3) CMRR, VICM



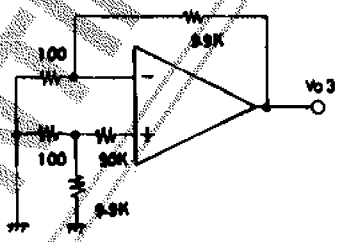
• CMRR V1=±7.5V

$$CMR = 20\log\frac{15\times 100}{|\Delta Vo|}$$

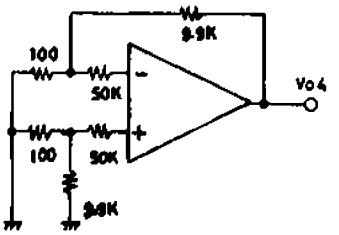
(4) IB(+)



(5) IB(-)

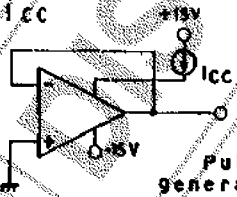


(6) IIO

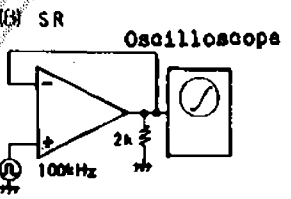


$$\cdot I_{B(+)} = \frac{|Vo2-Vo1|}{50k\times 100} \qquad \cdot I_{B(-)} = \frac{|Vo3-Vo1|}{50k\times 100} \qquad \cdot I_{IO} = \frac{|Vo4-Vo1|}{50k\times 100}$$

(7) ICC

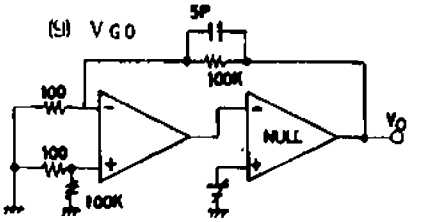


(8) SR



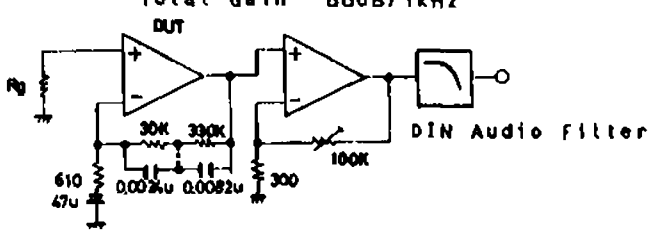
10Vpp rectangular wave

(9) VGO



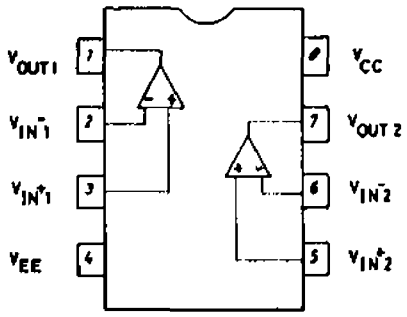
$$\cdot VGO = 20\log\frac{1000\times 20}{\Delta Vo}$$

(10) VNI RIAA(36dB/1kHz)
Total Gain 80dB/1kHz

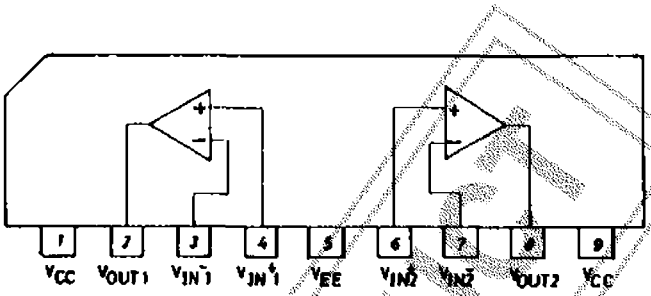


Unit (resistance:Ω capacitance:F)

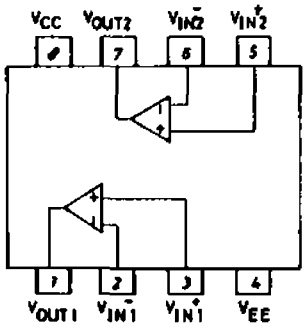
Pin Assignment



[LA6462D]



[LA6462S]



[LA6462M]

Equivalent Circuit