LA6500

Electrical Characteristics at Ta = 25°C, $V_{CC}/V_{EE} = \pm15V$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Quiescent current dissipation	I_{CCO}			6.0	12.0	mA
Input offset voltage	V_{IO}			2	6	mV
Input offset current	I_{IO}			10	200	nA
Input bias current	I_B			100	700	nA
Common-mode input voltage range	V_{ICM}		-15		+13	V
Common-mode rejection	CMR		70	80		dB
Maximum output voltage	V_O	$R_L = 33\Omega$	±12	±13		V
Voltage gain	VG_O			100		dB
Slew rate	SR	$G_V = 0$, $R_L = 33\Omega$, R = 2.2Ω, L = 0.1μF		0.15		V/μs
Equivalent input noise voltage	V_{NI}	Rg = 1kΩ, DIN AUDIO		2		μV
Supply voltage rejection	SVR			30	150	μV/V
Limiting current	I_{SC}			1.0		A

Package Dimensions

unit : mm (typ)
3079C

220-5H

Pd max − Ta

Pin Assignment

Top view

1 +V_{IN}
2 −V_{IN}
3 V_{EE}
4 OUTPUT
5 V_{CC}

LA6500
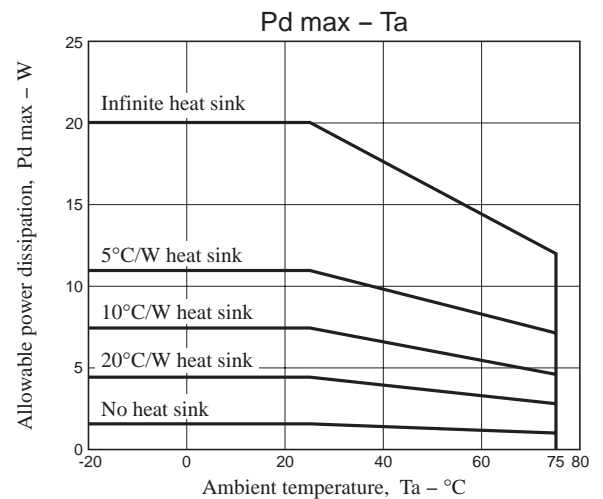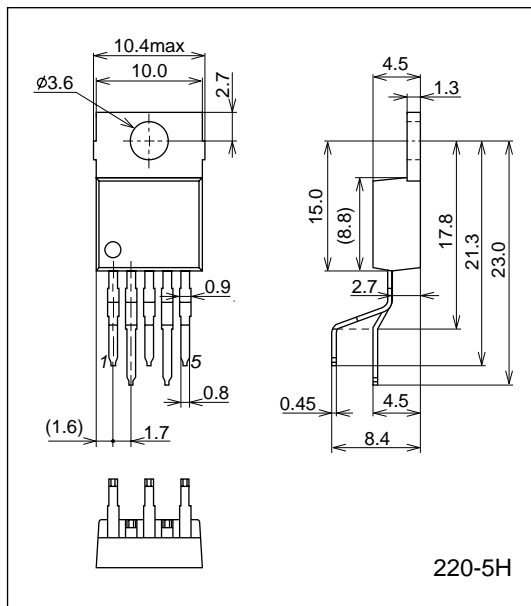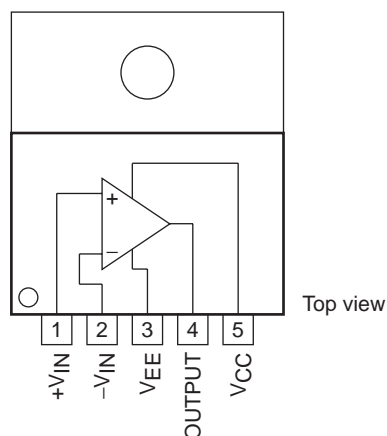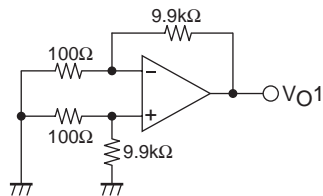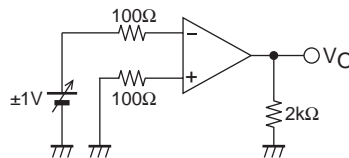
Equivalent Circuit
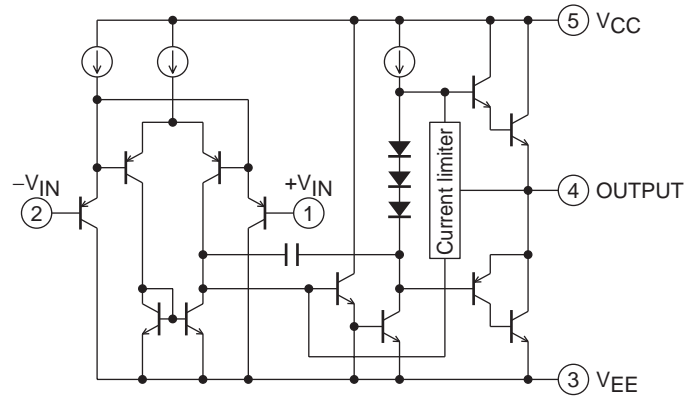
Test Circuit
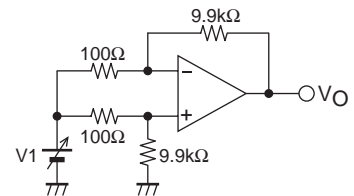
(1) V_{IO}, SVRR

- V_{IO} is $V_{CC}/V_{EE} = \pm 15V$
- SVRR is $\begin{cases} V_{CC} = 15, 5V \\ V_{EE} = -5, -15V \end{cases}$
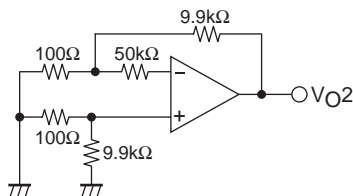
(2) V_O

- $V_{IO} = V_O 1/100$
- $\begin{matrix} SVR(+) \\ SVR(-) \end{matrix} = \left| \dfrac{\Delta V_O 1}{100 \times 10V} \right|$

(3) CMMR, V_{ICM}

- CMRR $V1 = \pm 7.5V$
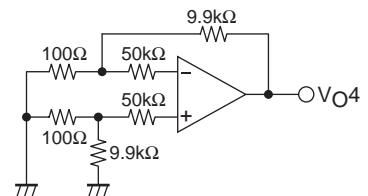- $CMR = 20\log \dfrac{15 \times 100}{|\Delta V_O|}$

(3) $I_B(+)$

- $I_B(+) = \dfrac{|V_O 2 - V_O 1|}{50k\Omega \times 100}$

(4) $I_B(-)$
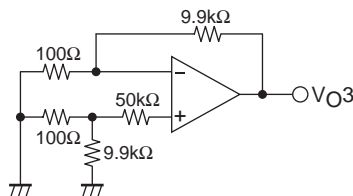
- $I_B(-) = \dfrac{|V_O 3 - V_O 1|}{50k\Omega \times 100}$

(5) I_{IO}

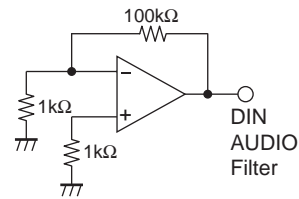- $I_{IO} = \dfrac{|V_O 4 - V_O 1|}{50k\Omega \times 100}$

(7) I_{CC}

(8) SR

10Vp-p Square wave
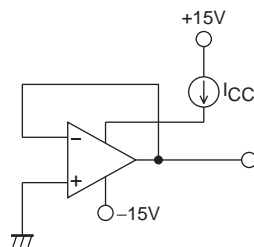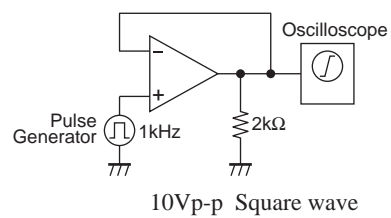
(9) VG$_O$

$$\cdot \, VG_O = 20\log \frac{1000 \times 20}{\Delta V_O}$$
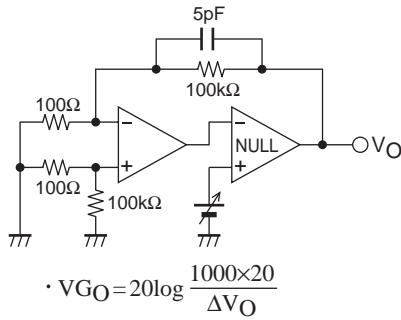
(10) V$_{NI}$

Application Circuit Example