

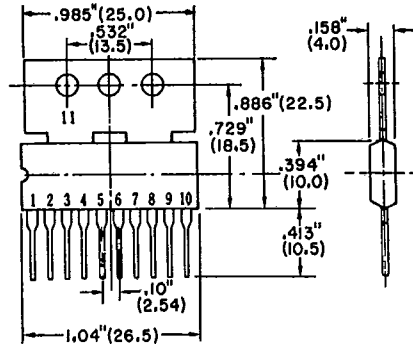
# ECG1081A

## 4.8-WATT AUDIO POWER AMPLIFIER

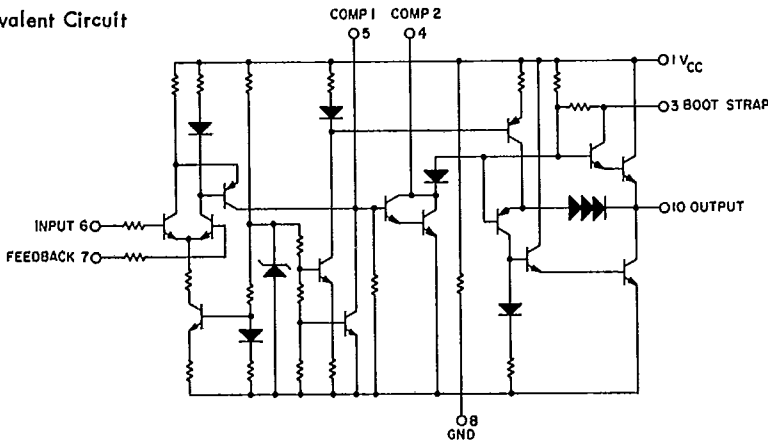
Silicon Monolithic Integrated Circuit,  
4.8-Watt (typ) Audio Power Amplifier.

### MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )

$V_{CC1}$ (zero input) .....	20.0 V
$V_{CC2}$ (operating) .....	17.0 V
$I_{CC}$ Peak .....	2.5 A
$P_D$ (with external heat sink) ....	7.0 W
$T_{opt}$ .....	$-20$ to $+75^\circ\text{C}$
$T_{stg}$ .....	$-40$ to $+150^\circ\text{C}$



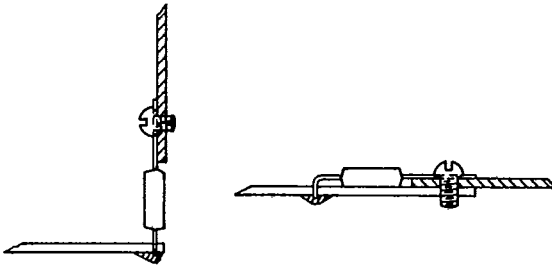
### Equivalent Circuit



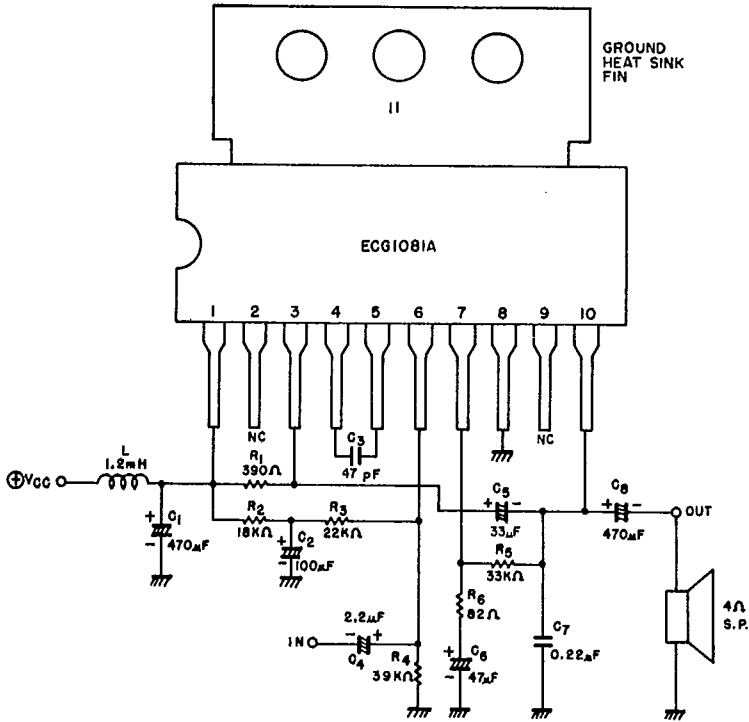
ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ ,  $V_{CC} = 13.2\text{ V}$ ,  
 $f = 1\text{ kHz}$ ,  $R_L = 4\text{ Ohms}$ )

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Standby Current	$I_{CC}$	Zero Input	15	28	45	mA
Output Power	$P_o$	T.H.D. = 10%	4.0	4.8	--	W
Total Harmonic Distortion	T.H.D.	$P_o = 0.5\text{ W}$	--	0.6	1.2	%
Closed-Loop Voltage Gain	GV	$P_o = 0.5\text{ W}$	49.0	51.5	52.0	dB
Output Noise Level	$V_{NO}$	$R_g = \infty$	--	1.4	4.0	mV

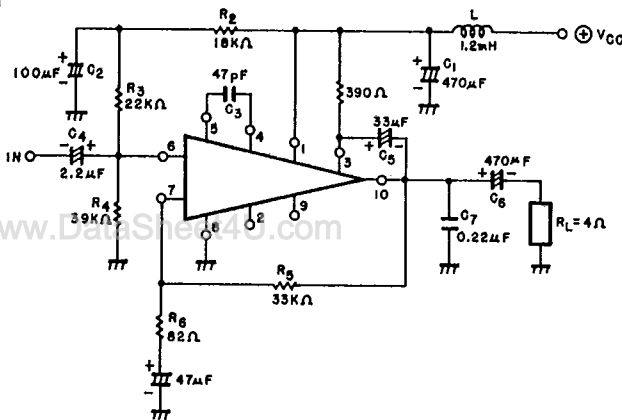
# MOUNTING



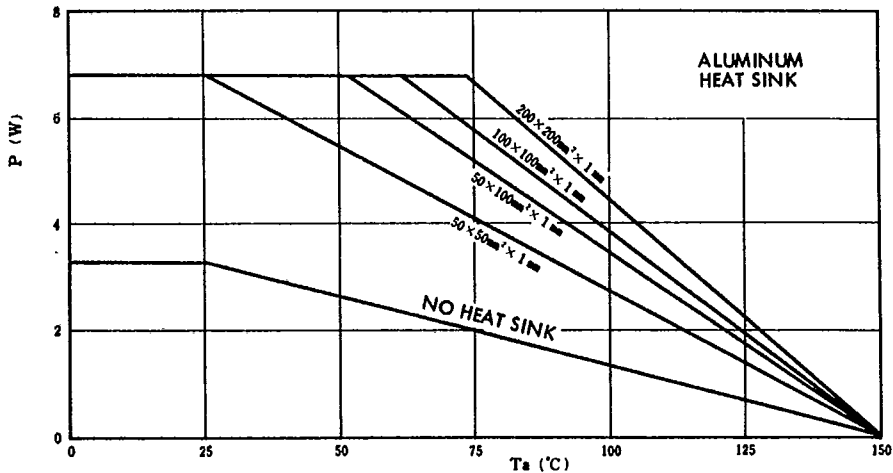
# TYPICAL APPLICATION CIRCUIT



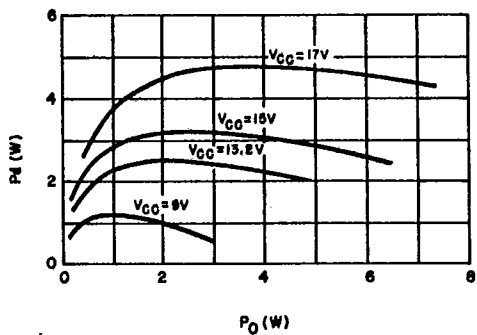
# TEST CIRCUIT



Power Output vs. Case Temperature

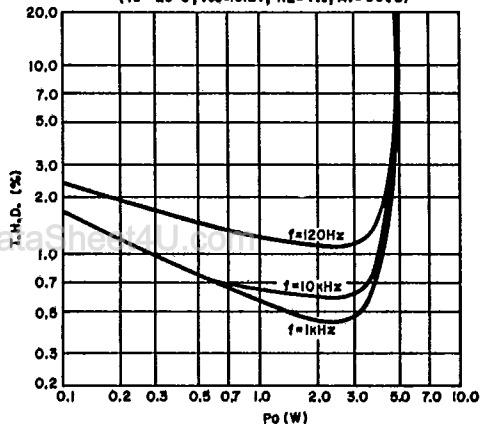


Power Output vs. Power Dissipation

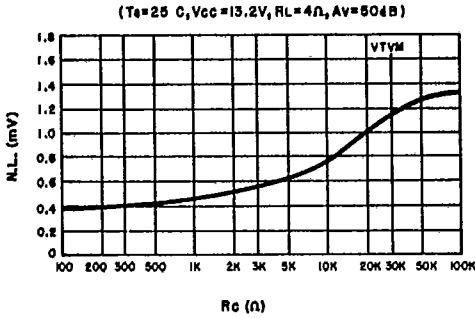


(T<sub>a</sub> = 25°C, V<sub>CC</sub> = 13.2 V, R<sub>L</sub> = 4 Ohms, A<sub>v</sub> = 50 dB)

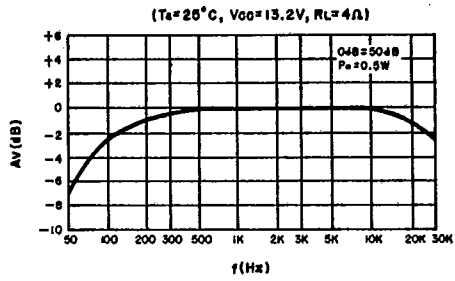
(T<sub>a</sub> = 25°C, V<sub>CC</sub> = 13.2V, R<sub>L</sub> = 4Ω, A<sub>v</sub> = 50dB)



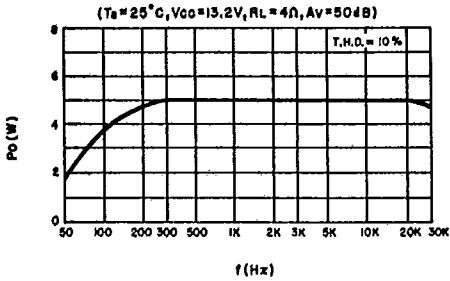
( $T_a = 25^\circ\text{C}$ ,  $V_{CC} = 13.2\text{ V}$ ,  $R_L = 4\ \Omega$ ,  $A_v = 50\ \text{dB}$ )



( $T_a = 25^\circ\text{C}$ ,  $V_{CC} = 13.2\text{ V}$ ,  $R_L = 4\ \Omega$ )



( $T_a = 25^\circ\text{C}$ ,  $V_{CC} = 13.2\text{ V}$ ,  $R_L = 4\ \Omega$ ,  $A_v = 50\ \text{dB}$ )



( $T_a = 25^\circ\text{C}$ ,  $R_L = 4\ \Omega$ )

