



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089
<http://www.nteinc.com>

NTE1031

Linear Integrated Circuit, Audio Power Amp, 0.5W

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Supply Voltage, V_{CC}	9V
Output Current, I_O	0.6A
Power Dissipation, P_T	0.8W
Operating Temperature Range, T_{opr}	-30° to $+70^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+125^\circ\text{C}$

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 6\text{V}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_Q	$f = 1\text{kHz}, R_L = 8\Omega$	-	3.0	5.0	mA
Output Gain-Open Loop	$G_{V(OL)}$	$f = 1\text{kHz}, R_L = 8\Omega$	-	90	-	dB
Closed Loop Gain	G_V	$f = 1\text{kHz}, R_L = 8\Omega$	-	50	-	dB
Total Harmonic Distortion	THD	$f = 1\text{kHz}, P_O = 50\text{mW}, R_L = 8\Omega$	-	0.2	0.6	%
Power Output	P_O	$f = 1\text{kHz}, \text{THD} \leq 10\%, R_L = 8\Omega$	0.4	0.5	-	W
Signal-to-Noise Ratio	S/N	$R_g = 0, P_O = 50\text{mW}, R_L = 8\Omega$ with 20kHz L.P.F.	-	66	-	dB
Input Resistance	R_{in}	$f = 1\text{kHz}, R_L = 8\Omega$	13	20	-	$k\Omega$

Pin Connection Diagram

