



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

## NTE1381 Integrated Circuit Audio Power Amp, 2.1W

**Features:**

- High Power Output at Low Voltage:  $P_O = 2.1W$  Typ (9V, 4Ω)
- Low Quiescent Current

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

Maximum Supply Voltage, $V_{CC}$ .....	13V
Peak Supply Current, $I_{CC}$ .....	1.5A
Power Dissipation, $P_D$	
No Heat Sink .....	1.2W
With Heat Sink .....	2.25W
Operating Temperature Range, $T_{opr}$ .....	$-20^\circ$ to $+70^\circ C$
Storage Temperature Range, $T_{stg}$ .....	$-40^\circ$ to $+150^\circ C$

**Electrical Characteristics:** ( $T_A = +25^\circ C$ ,  $V_{CC} = 9V$ ,  $R_L = 4\Omega$ ,  $f = 1kHz$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Circuit Current	$I_{CQ}$	$V_i = 0$	-	15	25	mA
Open Loop Voltage Gain	$G_{VO}$	$V_i = 0.2mV$	-	70	-	dB
Closed Loop Voltage Gain	$G_{VC}$	$V_i = 5mV$	42	45	48	dB
			0.63	0.89	1.25	V
Output Power	$P_O$	THD = 10%	1.3	2.1	-	W
		$V_{CC} = 9V$ , $R_L = 8\Omega$ , THD = 10%	-	1.4	-	W
Total Harmonic Distortion	THD	$V_i = 5mV$	-	0.5	1.5	%
Output Noise Voltage	$V_{NO}$	$R_g = 10k\Omega$	-	-	3	mV
Input Impedance	$Z_i$		12	20	-	kΩ

### Pin Connection Diagram

