



**ELECTRONICS, INC.**  
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## NTE1228 Integrated Circuit Audio Power Amp, 2.1W

**Features:**

- AF Output Power
- Sufficient Regulation Under Dry Battery Operation

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

Maximum Supply Voltage, $V_{CCmax}$ .....	13V
Allowable Power Dissipation, $P_{dmax}$ .....	1.2W
Allowable Power Dissipation (Note 1), $P_{dmax}$ .....	2.25W
Operating Temperature Range, $T_{opr}$ .....	$-20^\circ$ to $+70^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-40^\circ$ to $+150^\circ\text{C}$

Note 1. With 50 x 50mm<sup>2</sup> printed board for radiator.

**Recommended Operation Condition:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Recommended Supply Voltage, $V_{CC}$ .....	9V
Load Resistance, $R_L$ .....	4,8 $\Omega$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	$I_{CCO}$		–	15	25	mA
Voltage Gain	VG	Open Loop	–	70	–	dB
		At Appointed Circuit	42	45	48	dB
Output Power	$P_O$	THD = 10%, $R_L = 4\Omega$	1.3	2.1	–	W
		THD = 10%, $R_L = 8\Omega$	–	1.4	–	W
Total Harmonic Distortion	THD	$P_O = 250\text{mW}$	–	0.5	1.5	%
Input Resistance	$r_i$		12k	20k	–	$\Omega$
Output Noise Voltage	$V_{NO}$	$R_g = 10\text{k}\Omega$	–	–	3	mV
		$R_g = 0$	–	–	1.0	mV

### Pin Connection Diagram

