



ELECTRONICS, INC.  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089

## NTE1612 Integrated Circuit AF PO, 0.7W for Battery Use

**Features:**

- Wide Operating Voltage (2V to 6V)
- Power Amplifier has High Output (430mW), Low Noise (0.25mV<sub>RMS</sub>) and Low Distortion (0.4%)
- Maximum Output can be 700mW
- High Ripple Rejection Ratio (typically 46dB)
- Very Low High-Frequency Distortion and a Sort Cuppea Wave Form make this a Superior Audio Amplifier
- Built-In Power Switching Circuit

**Applications:**

- Portable Radio
- Television
- Cassette Tape Recorder
- Intercoms

**Absolute Maximum Ratings:** (T<sub>A</sub> = +25°C unless otherwise specified)

Power Supply Voltage, V <sub>CC</sub> .....	9V
Power Dissipation, P <sub>D</sub> .....	950mW
Derate Above 25°C .....	9.5mW
Operating Temperature Range, T <sub>opr</sub> .....	-10° to +65°C
Storage Temperature Range, T <sub>stg</sub> .....	-30° to +125°C

**Electrical Characteristics:** (T<sub>A</sub> = +25°C, V<sub>CC</sub> = 6V, R<sub>L</sub> = 8Ω, f = 1kHz unless otherwise specified)

Parameter	Sym- bol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I <sub>O</sub>	V <sub>IN</sub> = 0V <sub>rms</sub>	–	12	24	mA
Voltage Gain (Close Circuit)	G <sub>VC</sub>	R <sub>NFC</sub> = 47Ω, V <sub>IN</sub> = 2.5mV <sub>rms</sub>	48	52	54	dB
Maximum Output	P <sub>OM</sub>	V <sub>IN</sub> = 25mV <sub>rms</sub>	600	700	–	mW
Rated Output	P <sub>OUT</sub>	THD = 10%	350	430	–	mW
Total Harmonic Distortion	THD	P <sub>O</sub> = 50mW	–	0.4	2	%
Output Noise Voltage	V <sub>NO</sub>	R <sub>g</sub> = 0Ω	–	0.25	0.7	mV <sub>rms</sub>
Input Resistance	R <sub>IN</sub>	P <sub>O</sub> = 50mW	–	22	–	kΩ

**Pin Connection Diagram**  
(Front View)

