

**NTE1470**  
**Integrated Circuit**  
**Audio Power Amp, 2.5W**  
**for Table Top Stereo**

**Features:**

- High Gain 50dB
- Low Distortion, Low Noise
- Wide Range of Operation Voltage.

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

|   |                                     |
|---|-------------------------------------|
| Maximum Supply Voltage, $V_{CCmax}$ .....     | 20V                                 |
| Allowable Power Dissipation, $P_{dmax}$ ..... | 2.5W                                |
| With Additional Heat Sink .....               | 3.0W                                |
| Operating Temperature Range, $T_{opg}$ .....  | $-20^\circ$ to $+75^\circ\text{C}$  |
| Storage Temperature Range, $T_{stg}$ .....    | $-40^\circ$ to $+150^\circ\text{C}$ |

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

|  |           |
|--|-----------|
| Recommended Supply Voltage, $V_{CC}$ ..... | 14V       |
| Load Resistance, $R_L$ .....               | $8\Omega$ |

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 14\text{V}$ ,  $R_L = 8\Omega$ ,  $f = 1\text{kHz}$ ,  $R_g = 600\Omega$  unless otherwise specified)

| Parameter                 | Symbol    | Test Conditions        | Min | Typ  | Max | Unit     |
|---------------------------|-----------|------------------------|-----|------|-----|----------|
| Quiescent Current         | $I_{CCO}$ |                        | –   | 20   | –   | mA       |
| Voltage Gain              | VG        | Closed Loop            | –   | 50   | –   | dB       |
| Output Power              | $P_O$     | THD = 10%              | 2.0 | 2.5  | –   | W        |
| Total Harmonic Distortion | THD       | $P_O = 0.5\text{W}$    | –   | 0.3  | 1.0 | %        |
| Input Resistance          | $r_i$     |                        | –   | 100k | –   | $\Omega$ |
| Output Noise Voltage      | $V_{NO}$  | $R_g = 10\text{k ohm}$ | –   | 1    | 3   | mV       |

### Pin Connection Diagram

