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NTE1465 Integrated Circuit Audio Power Amplifier, 500mW

Description:

The NTE1465 is an integrated circuit in a 9-Lead SIP type package designed for use as an audio power amplifier in radio and portable cassette tape recorders.

Features:

- Output Power: $P_O = 500\text{mW}$ (Typ) @ $V_{CC} = 6\text{V}$, $R_L = 8\Omega$, THD = 10%
- Wide Operating Supply Range: $V_{CC} = 4\text{V}$ to 14V
- Low Quiescent Current

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

| | |
|---|-------------------------------------|
| Supply Voltage, V_{CC} | 14V |
| Output Current (Peak), $I_{O(\text{peak})}$ | 500mA |
| Power Dissipation, P_D | 750mW |
| Operating Temperature Range, T_{opr} | -25° to $+75^\circ\text{C}$ |
| Storage Temperature Range, T_{stg} | -55° to $+150^\circ\text{C}$ |

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 6\text{V}$, $R_L = 8\Omega$, $R_g = 600\Omega$, $R_f = 47\Omega$, $f = 1\text{kHz}$ unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---------------------------|-----------|---|-----|-----|-----|-------------------|
| Quiescent Current | I_{CCQ} | $V_{CC} = 4\text{V}$ | 7 | – | – | mA |
| | | $V_{CC} = 6\text{V}$ | – | 15 | 20 | mA |
| | | $V_{CC} = 9\text{V}$ | – | 17 | 23 | mA |
| Output Power | P_O | THD = 10% | 450 | 500 | – | mW |
| | | $V_{CC} = 9\text{V}$, $R_L = 16\Omega$ | – | 700 | – | mW |
| Total Harmonic Distortion | THD | $P_O = 100\text{mW}$ | – | 0.3 | 1.0 | % |
| Open Loop Voltage Gain | G_{VO} | $R_f = 0$ | 65 | 71 | – | dB |
| Closed Loop Voltage Gain | G_V | $R_f = 47\Omega$, Note 1 | 47 | 50 | 52 | dB |
| Input Resistance | R_{IN} | | – | 15 | – | k Ω |
| Output Noise Voltage | V_{NO} | $R_g = 10\text{k}\Omega$, BW = 50Hz to 20kHz | – | 0.4 | 1.0 | mV _{rms} |

Note 1. In regard to the value of the closed loop gain, it is possible to be classified.

Pin Connection Diagram
(Front View)

