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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)

