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NTE1476 Integrated Circuit Audio Power Amplifier, 1.4W

Description:

The NTE1476 is an audio power amplifier in a 10-Lead SIP type package designed for use as a power amplifier in portable cassette tape recorder applications.

Features:

- Recommended Supply Voltage: $V_{CC} = 7.5V, 9.0V$
- Output Power:
 $P_{OUT} = 1.4W$ (Typ) at $V_{CC} = 7.5V, R_L = 4\Omega$
 $P_{OUT} = 2.0W$ (Typ) at $V_{CC} = 9.0V, R_L = 4\Omega$ THD = 10%
- Minimum Operating Voltage: $V_{CC} = 5.0V$
- Low Quiescent Current
- Excellent Ripple Rejection
- Built in Turn-On Muting Circuit

Absolute Maximum Ratings: ($T_A = +25^\circ C$)

Supply Voltage, V_{CC}	14V
Output Current (Peak), $I_{O(peak)}$	1.8A
Power Dissipation, P_D	5.0W
Operating Temperature Range, T_{opr}	-20° to $+75^\circ C$
Storage Temperature Range, T_{stg}	-55° to $+150^\circ C$

Electrical Characteristics: ($T_A = +25^\circ C, R_L = 4\Omega, R_g = 600\Omega, R_f = 150\Omega, f = 1kHz$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Quiescent Current	I_{CCQ}	$V_{CC} = 5V$	55	–	–	mA	
		$V_{CC} = 9V$	7	–	30	mA	
		$V_{CC} = 14V$	–	–	35	mA	
Output Power	P_{OUT}	THD = 10%	$V_{CC} = 5V$	–	0.65	–	W
			$V_{CC} = 7.5V$	–	1.4	–	W
			$V_{CC} = 9V$	1.5	2.0	–	W

Electrical Characteristics (Cont'd): ($T_A = +25^\circ\text{C}$, $R_L = 4\Omega$, $R_g = 600\Omega$, $R_f = 150\Omega$, $f = 1\text{kHz}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Total Harmonic Distortion	THD	$P_{OUT} = 100\text{mW}$	$V_{CC} = 7.5\text{V}$	–	0.35	–	%
			$V_{CC} = 9\text{V}$	–	0.35	1.0	%
Open Loop Voltage Gain	G_{VO}	$V_{CC} = 9\text{V}$, $R_f = 0$, $V_{IN} = 0.245\text{mV}_{\text{rms}}$	–	72	–	dB	
Closed Loop Voltage Gain	G_V	$V_{CC} = 9\text{V}$, $R_f = 150\Omega$, $V_{IN} = 3.9\text{mV}_{\text{rms}}$	–	46	–	dB	
Input Resistance	R_{IN}	$V_{CC} = 9\text{V}$, $V_{OUT} = 1\text{V}_{\text{rms}}$	25	30	–	k Ω	
Output Noise Voltage	V_{NO}	$V_{CC} = 9\text{V}$, $R_g = 10\text{k}\Omega$, $\text{BW} = 50\text{Hz to } 20\text{kHz}$	–	–	1.0	mV	

Pin Connection Diagram
(Front View)

