

NTE745 Integrated Circuit Audio Amplifier, 500mW

Description:

the NTE745 is a monolithic complementary power amplifier and preamplifier designed to deliver 1/2-Watt into a loudspeaker with a $3.0\text{mV}_{(\text{rms})}$ typical input. Gain and bandwidth are externally adjustable. Typical applications include portable AM-FM radios, tape recorders, phonographs, and intercoms.

Features:

- 1/2-Watt Power Output (9.0 Vdc Supply, 8-Ohm Load)
- High Overall Gain- $3.0\text{mV}_{(\text{rms})}$ Sensitivity for 1/2-Watt Output
- Low Zero-Signal Current Drain- 4.0mA_{dc} @ 9.0V typ
- Low Distortion-0.5% at 250mW typ

Electrical Characteristics: ($V_+ = 9\text{V}$, $R_L = 8\Omega$, $f = 1\text{kHz}$, $T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Open Loop Voltage Gain	A_{VOL}	Pre-Amplifier, $R_L = 1.0\text{k}\Omega$	-	270	-	V/V
		Power-Amplifier, $R_L = 16\Omega$	-	360	-	V/V
Sensitivity	S	$P_O = 500\text{mW}$	-	3.0	-	$\text{mV}_{(\text{rms})}$
Output Impedance (Power-Amplifier)	Z_O		-	0.5	-	W
Signal to Noise Ratio	S/N	$P_O = 150\text{mW}$, $f = 300\text{Hz}$ to 10kHz	-	55	-	dB
Total Harmonic Distortion	THD	$P_O = 250\text{mW}$	-	0.5	-	%
Quiescent Output Voltage	V_O		-	$V_+/2$	-	Vdc
Output Power	P_O	THD $\leq 10\%$	500	570	-	mW
Current Drain	I_D	Zero Signal	-	4.0	-	mA
Power Dissipation	P_D	Zero Signal	-	36	-	mW

Pin Connection Diagram

