

## 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 3.0mV<sub>(rms)</sub> 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-3.0mV<sub>(rms)</sub> Sensitivity for 1/2-Watt Output
- Low Zero-Signal Current Drain-4.0mAdc @ 9.0V typ
- Low Distortion-0.5% at 250mW typ

**Electrical Characteristics:** (V+ = 9V, R<sub>L</sub> = 8Ω, f = 1kHz, T<sub>A</sub> = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Open Loop Voltage Gain	A <sub>VOL</sub>	Pre-Amplifier, R <sub>L</sub> = 1.0kΩ	–	270	–	V/V
		Power-Amplifier, R <sub>L</sub> = 16Ω	–	360	–	V/V
Sensitivity	S	P <sub>O</sub> = 500mW	–	3.0	–	mV <sub>(rms)</sub>
Output Impedance (Power-Amplifier)	Z <sub>O</sub>		–	0.5	–	W
Signal to Noise Ratio	S/N	P <sub>O</sub> = 150mW, f = 300Hz to 10kHz	–	55	–	dB
Total Harmonic Distortion	THD	P <sub>O</sub> = 250mW	–	0.5	–	%
Quiescent Output Voltage	V <sub>O</sub>		–	V+/2	–	Vdc
Output Power	P <sub>O</sub>	THD ≤ 10%	500	570	–	mW
Current Drain	I <sub>D</sub>	Zero Signal	–	4.0	–	mA
Power Dissipation	P <sub>D</sub>	Zero Signal	–	36	–	mW

# Pin Connection Diagram

