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NTE1627 Integrated Circuit Power Amp, 550mW, for Battery Operated Radios

Description:

The NTE1627 is a monolithic integrated circuit in a 9-Lead SIP type package consisting of a power amplifier intended for applications such as portable radios, tape recorders, and intercoms. It operates from a supply voltage of 6V and can deliver the rated output power of 350mW (THD = 10%) to a load of 8Ω. A maximum output power of 550mW is attainable.

Features:

- Delivers 350mW (THD = 10%) of Output Power to a 8Ω Load with 6V Operation
- Excellent Low-Voltage Characteristics (Starting Voltage < 2V)
- Housed in a Compact 9-Lead SIP Package Comparable in Size to a Preamplifier IC
- Low Current Consumption (Typically 4.8mA)

Applications:

- Portable Radios
- Portable Tape Recorders
- Intercoms

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Supply Voltage, V_{CC} 12V
 Power Dissipation, P_D 500mW
 Operating Temperature Range, T_{opr} -25° to +75°C
 Storage Temperature Range, T_{stg} -55° to +125°C

Electrical Characteristics: (T_A = +25°C, V_{CC} = 6V, R_L = 8Ω, f = 1kHz unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I _Q	V _{IN} = 0V	-	4.8	7	mA
Voltage Gain (Closed Loop)	G _{VC}	R _{NF} = 68Ω	47	50	53	dB
Maximum Output Power	P _{OM}	V _{IN} = -30dBm	420	550	-	mW
Rated Output Power	P _{OUT}	THD = 10%	250	350	-	mW
Total Harmonic Distortion	THD	P _O = 100mW	-	1.1	2.5	%
Output Noise Voltage	V _{NO}	R _g = 10kΩ	-	1.0	2.5	mV _{rms}
Input Resistance	R _{IN}		-	25	-	kΩ

Pin Connection Diagram
(Front View)

