ELECTRONICS, INC.
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NTE1465
Integrated Circuit
Audio Power Amplifier, 500mW

Description:

The NTE1465 is an integrated circuit in a 9–Lead SIP type packge designed for use as an audio power amplifier in radio and portable cassette tape recorders.

Features:

- Output Power: P_O = 500mW (Typ) @ V_{CC} = 6V, R_L = 8Ω, THD = 10%
- Wide Operating Supply Range: V_{CC} = 4V to 14V
- Low Quiescent Current

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

Supply Voltage, V_{CC} 14V
Output Current (Peak), $I_{O(peak)}$ 500mA
Power Dissipation, P_D 750mW
Operating Temperature Range, T_{opr} . . . . . –25° to +75°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C

Electrical Characteristics: (T_A = +25°C, V_{CC} = 6V, R_L = 8Ω, R_g = 600Ω, R_f = 47Ω, f = 1kHz unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_{CCQ}	V_{CC} = 4V	7	–	–	mA
		V_{CC} = 6V	–	15	20	mA
		V_{CC} = 9V	–	17	23	mA
Output Power	P_O	THD = 10%	450	500	–	mW
		V_{CC} = 9V, R_L = 16Ω	–	700	–	mW
Total Harmonic Distortion	THD	P_O = 100mW	–	0.3	1.0	%
Open Loop Voltge Gain	G_{VO}	R_f = 0	65	71	–	dB
Closed Loop Voltage Gain	G_V	R_f = 47Ω, Note 1	47	50	52	dB
Input Resistance	R_{IN}		–	15	–	kΩ
Output Noise Voltage	V_{NO}	R_g = 10kΩ, 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)