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NTE1463 Integrated Circuit AF Power Amp for Tape Recorder

Features:

- AF Output Power: 2.7W/3.2Ω, or 2.3W/4Ω
- Small op Noise by Muting CRT
- High Ripple Reduction
- Good Supply Voltage Characteristics
- No Switching Distortion at High Frequency

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Supply Voltage, V_{CC}	
Quiescent	13V
Operating	11V
Allowable Power Distortion, $P_{Dmax(1)}$	1.2W
Allowable Power Distortion (Note 1), $P_{Dmax(2)}$	2.25W
Current at Pin 11 ($R_L \geq 330\Omega$), I_{11}	30mA
Operating Temperature Range, T_{opr}	-20° to $+70^\circ\text{C}$
Storage Temperature Range, T_{stg}	-40° to $+150^\circ\text{C}$

Note 1. 50 x 50 x 1.5mm³ printed board used.

Recommended Operating Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Supply Voltage, V_{CC}	9V
Load Resistance, R_L	3.2 to 8.0Ω

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 9\text{V}$, $R_L = 3.2\Omega$, $f = 1\text{kHz}$, $R_g = 600\Omega$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_{CCO}		–	15	25	mA
Voltage Gain	$V_{G(1)}$	Open Loop	–	68	–	dB
	$V_{G(2)}$	Closed Loop	42	45	48	dB
Output Power	P_O	$R_L = 3.2\Omega$, THD = 10%	2.1	2.7	–	W
		$R_L = 4\Omega$, THD = 10%	1.7	2.3	–	W
Input Resistance	r_i		12	20	–	kΩ
Total Harmonic Distortion	THD	$P_O = 300\text{mW}$	–	–	2.0	%
Output Noise Voltage	$V_{NO(1)}$	$R_g = 10\text{k}\Omega$	–	–	2.5	mV
	$V_{NO(2)}$	$R_g = 0\Omega$	–	–	0.8	mV

Pin Connection Diagram

