

NTE1024 Integrated Circuit Module – Hybrid, Audio Power Amplifier

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

Maximum Supply Voltage, $V_{CC\text{max}}$ 35V
 Operating Case Temperature, T_C $+85^\circ\text{C}$
 Storage Temperature Range, T_{stg} -30° to $+100^\circ\text{C}$
 Available Load Shorting Time ($V_{CC} = 25\text{V}$, $P_O = 5\text{W}$, $R_L = 8\Omega$, $f = 50\text{Hz}$), t_s 2sec

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

Supply Voltage, V_{CC} 25V
 Load Resistance, R_L 8Ω

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 25\text{V}$, $R_L = 8\Omega$, $R_g = 600\Omega$, $f = 1\text{kHz}$, $R_{NF} = 3\text{k}\Omega$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Current	I_{CCO}		–	–	50	mA
Output Power	P_O	THD = 2%	6.5	8.0	–	W
Voltage Gain	VG	$P_O = 100\text{mW}$	34	35	36	dB
Total Harmonic Distortion	THD	$P_O = 100\text{mW}$	–	–	1.0	%
Input Impedance	r_i	$P_O = 100\text{mW}$	15	40	–	$\text{k}\Omega$
Output Impedance	r_o	$P_O = 100\text{mW}$	–	0.2	–	Ω
High Level Cut-Off Frequency	f_{CH}	$V_i = 50\text{mV}$, -3dB	50	–	–	kHz
Low Level Cut-Off Frequency	f_{CL}	$V_i = 50\text{mV}$, -3dB	–	–	30	Hz
Power Bandwidth	PBW	THD = 2%, $\pm 3\text{dB}$	30 to 30k			Hz
Output Noise Voltage	V_{NO}	$R_g = 10\text{k}\Omega$	–	–	4	mV

Pin Connection Diagram
(Front View)

