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NTE1871 Integrated Circuit Module – Dual AF Power Amplifier, 50W/Ch, Dual Power Supplies

Features:

- Built-In Muting Circuit to Cut-Off Pop Noise

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

Maximum Supply Voltage, V_{CCmax} $\pm 52.5\text{V}$
 Junction Temperature, T_J $+150^\circ\text{C}$
 Operating Case Temperature, T_C $+125^\circ\text{C}$
 Storage Temperature Range, T_{stg} -30° to $+125^\circ\text{C}$
 Thermal Resistance, Junction-to-Case, R_{thJC} 1.8°C/W
 Available Time for Lead Shorted ($V_{CC} = \pm 35\text{V}$, $R_L = 8\Omega$, $f = 50\text{MHz}$, $P_O = 50\text{W}$), t_s 2sec

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

Recommended Supply Voltage, V_{CC} $\pm 35\text{V}$
 Load Resistance, R_L 8Ω

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = \pm 35\text{V}$, $R_L = 8\Omega$, $R_g = 600\Omega$, $V_G = 40\text{dB}$,
 R_L : Non-Inductive Load unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_{CCO}	$V_{CC} = \pm 42\text{V}$	20	40	100	mA
Output Power	$P_O (1)$	THD = 0.4%, $f = 20\text{Hz}$ to 20kHz	50	–	–	W
	$P_O (2)$	$V_{CC} = \pm 31\text{V}$, THD = 1.0%, $R_L = 4\Omega$, $f = 1\text{kHz}$	55	–	–	W
Total Harmonic Distortion	THD	$P_O = 1\text{W}$, $f = 1\text{kHz}$	–	–	0.3	%
Frequency Characteristic	f_L, f_H	$P_O = 1\text{W}$, +0, –3dB	20 to 50k			Hz
Input Resistance	r_i	$P_O = 1\text{W}$, $f = 1\text{kHz}$	–	55	–	k Ω
Output Noise Voltage	V_{NO}	$V_{CC} = \pm 42\text{V}$, $R_g = 10\text{k}\Omega$	–	–	1.2	mV _{rms}
Middle Point Voltage	V_N	$V_{CC} = \pm 42\text{V}$	–70	0	+70	mV
Muting Voltage	V_M		–2	–5	–10	V

Note 1. For power supply at the time of test, use a constant-voltage power supply unless otherwise specified.

Note 2. The output noise voltage is represented by the peak value on RMS scale (VTVM) of average value indicating type. For AC power supply, use an AC stabilized power supply (50Hz) to eliminate the effect of flicker noise in AC primary line.

Pin Connection Diagram
(Front View)

