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NTE1038 Integrated Circuit 3.5 Watt Audio Power Amplifier

Features:

- SRPP Circuit (Shunt-Regulated, Push-Pull)
- High Voltage Gain – 44dB typ
- Low Thermal Resistance – 10°C/W (max)

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

Supply Voltage, V_{CC} 18V
 Power Dissipation ($T_C = +65^\circ\text{C}$), P_T 6W
 Output Current, $I_{O(\text{peak})}$ 2.25A
 Operating Temperature Range (Note 1), T_{opr} -30° to $+70^\circ\text{C}$
 Storage Temperature Range, T_{stg} -55° to $+125^\circ\text{C}$

Note 1. Value when attached to the heat sink plate ($\theta_f = 10^\circ\text{C/W}$) at $P_T = 2.7\text{W}$

Electrical Characteristics: ($V_{CC} = 13.2\text{V}$, $R_L = 4\Omega$, $f = 1\text{kHz}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Voltage Gain	G_V		–	44	–	dB
Output Power	P_{out}	T.H.D. = 10%	3.0	3.5	–	W
Total Harmonic Distortion	T.H.D.	$P_{out} = 0.5\text{W}$	–	0.25	0.6	%
Signal to Noise Ratio	S/N	$R_g = 0$, $P_{out} = 0.5\text{W}$	–	85	–	dB
Input Impedance	R_{in}		11	15	–	k Ω

Pin Connection Diagram

