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NTE1278 Integrated Circuit Audio Power Amp, 5.8W

Features:

- Few External Parts Required
- Adjustable Closed-Loop Gain
- High Sustaining Over Voltage
- Excellent Ripple Rejection
- High Power and Low Distortion
- Audio Muting Circuit
- Protection Circuit for Load Short, Excessive Supply Voltage, and Thermal Shutdown

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

Peak Supply Voltage (200ms), $V_{CC\text{surge}}$	40V
DC Supply Voltage, $V_{CC(\text{DC})}$	25V
Operating Supply Voltage, $V_{CC(\text{ope})}$	18V
Peak Output Current, $I_{O(\text{Peak})}$	4.5A
Power Dissipation ($T_C = +25^\circ\text{C}$), P_D	12.5W
Operating Temperature Range, T_{opr}	-30° to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+150^\circ\text{C}$

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 12.5\text{V}$, $R_L = 4\Omega$, $R_g = 600\Omega$, $f = 1\text{kHz}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_{CCQ}		–	40	80	mA
		$V_{CC} = 18\text{V}$	–	45	100	mA
Output Power	P_{OUT}	THD = 10%	–	5.2	–	W
		$V_{CC} = 13.2\text{V}$, THD = 10%	5.0	5.8	–	W
		$V_{CC} = 13.2\text{V}$, $R_L = 2\Omega$, THD = 10%	–	9.3	–	W
Maximum Output Power	P_{OM}	$V_{CC} = 13.2\text{V}$, $V_{IN} = 100\text{mV}$	–	9.0	–	W
Total Harmonic Distortion	THD	$P_{OUT} = 1\text{W}$	–	0.2	1.5	%
		$P_{OUT} = 100\text{mW}$	–	0.36	1.0	%
		$P_{OUT} = 1\text{W}$, $R_L = 2\Omega$	–	0.5	–	%
Voltage Gain	G_V		51.5	53.0	54.5	dB
Input Resistance	R_{IN}		–	34	–	k Ω
Output Noise Voltage	V_{NO}	$R_g = 10\text{k}\Omega$, BW = 50Hz to 20kHz	–	0.9	2.0	mV

Pin Connection Diagram (Front View)

