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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)

