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NTE1819 Integrated Circuit Module, AF Power Amplifier, 30W/Ch

Features:

- Built-in muting circuit to cut off various kinds of pop noise
- Greatly reduced heat sink due to case temperature +125°C guaranteed

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

| | |
|---|----------------|
| Maximum Supply Voltage, V_{CCmax} | ±42V |
| Thermal Resistance, Junction-to-Case, Θ_{j-c} | 2.1°C/W |
| Junction Temperature, T_J | +150°C |
| Operating Case Temperature, T_C | +125°C |
| Storage Temperature range, T_{stg} | -30° to +125°C |
| Available Time for Load Shorted ($V_{CC} = \pm 27.5\text{V}$, $R_L = 8\Omega$, $f = 50\text{Hz}$, $P_O = 30\text{W}$), t_s | 2sec |

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

| | |
|---|--------|
| Recommended Operating Voltage, V_{CC} | ±27.5V |
| Load Resistance, R_L | 8Ω |

Operating Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = \pm 27.5\text{V}$, $R_L = 8\Omega$, $R_g = 600\Omega$, $V_G = 40\text{dB}$, R_L : non-inductive load, unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---------------------------|------------|---|-----------|-----|-----|-------------------|
| Quiescent Current | I_{CCO} | $V_{CC} = \pm 33\text{V}$ | 20 | 40 | 100 | mA |
| Output Power | $P_{O(1)}$ | THD = 0.4%, $f = 20\text{Hz}$ to 20kHz | 30 | - | - | W |
| | $P_{O(2)}$ | $V_{CC} = \pm 25\text{V}$, THD = 1%, $R_L = 4\Omega$, $f = 1\text{kHz}$ | 35 | - | - | W |
| Total Harmonic Distortion | THD | $P_O = 1\text{W}$, $F = 1\text{kHz}$ | - | - | 0.3 | % |
| Frequency Response | f_L, f_H | $P_O = 1\text{W}$, +0dB/-3dB | 20 to 50k | | | Hz |
| Input Resistance | r_i | $P_O = 1\text{W}$, $f = 1\text{kHz}$ | - | 55 | - | kΩ |
| Output Noise Voltage | V_{NO} | $V_{CC} = \pm 33\text{V}$, $R_g = 10\text{k}\Omega$ | - | - | 1.2 | mV _{rms} |
| Midpoint Voltage | V_N | $V_{CC} = \pm 33\text{V}$ | -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)

| | |
|----|---------------------|
| 18 | Input 2 |
| 17 | NFB 2 |
| 16 | GND |
| 15 | I Bias 2 |
| 14 | Power GND 2 |
| 13 | Output 2 |
| 12 | Bootstrap |
| 11 | (+) V _{CC} |
| 10 | Output 1 |
| 9 | Power GND 1 |
| 8 | Mute t Cap |
| 7 | Mute Adjust |
| 6 | Muting |
| 5 | I Bias 1 |
| 4 | Feedback |
| 3 | GND 1 |
| 2 | NFB 1 |
| 1 | Input 1 |

