



ELECTRONICS, INC.
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NTE1027 Integrated Circuit Module – Hybrid, Audio Power Amplifier

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

| | |
|--|----------------|
| Maximum Supply Voltage, V_{CCmax} | 48V |
| Operating Case Temperature, T_C | +90°C |
| Storage Temperature Range, T_{stg} | -30° to +100°C |
| Available Load Shorting Time ($V_{CC} = 32V, P_O = 10W, R_L = 8\Omega, f = 50Hz$), t_s | 2sec |

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

| | |
|--------------------------------|-----|
| Supply Voltage, V_{CC} | 32V |
| Load Resistance, R_L | 8Ω |

Electrical Characteristics: ($T_A = +25^\circ\text{C}, V_{CC} = 32V, R_L = 8\Omega, R_g = 600\Omega, f = 1kHz$ unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|------------------------------|-----------|--------------------|-----------|-----|-----|------|
| Supply Current | I_{CCO} | | 10 | 20 | 50 | mA |
| Output Power | P_O | THD = 1% | 10 | 13 | - | W |
| Voltage Gain | VG | $P_O = 100mW$ | 32 | 33 | 34 | dB |
| Total Harmonic Distortion | THD | $P_O = 100mW$ | - | - | 0.5 | % |
| Input Impedance | r_i | $P_O = 100mW$ | 20 | 40 | - | kΩ |
| Output Impedance | r_o | $P_O = 100mW$ | - | 0.2 | - | Ω |
| High Level Cut-Off Frequency | f_{CH} | $V_i = 50mV, -3dB$ | 50 | - | - | kHz |
| Low Level Cut-Off Frequency | f_{CL} | $V_i = 50mV, -3dB$ | - | - | 30 | Hz |
| Power Bandwidth | PBW | THD = 1%, ±3dB | 30 to 30k | | | Hz |
| Output Noise Voltage | V_{NO} | $R_g = 2.2k\Omega$ | - | - | 1.2 | mV |



Pin Connection Diagram
(Front View)

