

NTE1022 Integrated Circuit 4-Channel Stereo Decoder

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

| | |
|--|-------------------------------------|
| Supply Voltage, V_{CC} | 25V |
| Power Dissipation, P_D | 750mW |
| Derate Above 25°C | 6mW/ $^\circ\text{C}$ |
| Operating Temperature Range, T_{opr} | -30° to $+75^\circ\text{C}$ |
| Storage Temperature Range, T_{stg} | -55° to $+150^\circ\text{C}$ |

Electrical Characteristics: ($V_{CC} = 15\text{V}$, $f = 1\text{kHz}$, R_a to $R_d = \infty$, $T_A = +25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Test Conditions | | Typ | Max | Unit | |
|-----------------------------|---------------|---|-----------------------|------|------|-------------------|-----------|
| Supply Current | I_{CC} | $V_{CC} = 15\text{V}$ | – | 16 | 20 | mA | |
| | | $V_{CC} = 8\text{V}$ | – | 10 | – | mA | |
| Recommended Bias Resistance | R_B | | 47 | – | 680 | k Ω | |
| Input Impedance | Z_i | | – | 3 | – | M Ω | |
| Output Impedance | Z_o | | – | 7.2 | 9.0 | k Ω | |
| Voltage Gain | G_V | $V_{CC} = 8\text{V to }18\text{V}$ | 8.5 | 10.0 | 11.5 | dB | |
| Total Harmonic Distortion | THD | $V_{IN} = 100\text{mV}_{rms}$ | $V_{CC} = 15\text{V}$ | – | – | 0.1 | % |
| | | $V_{IN} = 300\text{mV}_{rms}$ | | – | – | 0.3 | % |
| | | | $V_{CC} = 8\text{V}$ | – | – | 1.0 | % |
| | | $R_a = R_b = 18\text{k}\Omega$, $R_c = R_d = 3\text{k}\Omega$, $V_{IN} = 300\text{mV}$ | | – | – | 0.5 | % |
| Input Noise Voltage | $V_{IN(Max)}$ | $V_{CC} = 15\text{V}$ | THD = 1% | 0.8 | 1.0 | – | V_{rms} |
| | | $V_{CC} = 8\text{V}$ | | – | 0.5 | – | V_{rms} |
| Output Noise Voltage | V_{NO} | $R_s = 220\text{k}\Omega$, $R_B = 180\text{k}\Omega$, $BW = 30\text{kHz}$ | – | – | 0.1 | mV_{rms} | |

Pin Connection Diagram

