



ELECTRONICS, INC.
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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

