ELECTRONICS, INC.
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NTE1085
Integrated Circuit
Low Noise Audio Preamp

Features:

- Low Noise: V_{NI} = 0.8μ$V_{rms(Typ)}$
- High Open Loop Voltage Gain: G_{VO} = 92dB (Typ)
- Low Distortion: THD = 0.1% (Max) at V_{OUT} = 7V_{rms}, G_V = 40dB, f= 1kHz

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Supply Voltage, V_{CC} 42V
Power Dissipation, P_D 400mW
Derate Above 25°C . . . . . 4mW/°C
Operating Temperature Range, T_{opr} . . . . . –30° to +75°C
Storage Temperature Range, T_{stg} . . . . . –55° to +125°C

Electrical Characteristics: (V_{CC} = 35V, T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Current	I_{CC}	V_{IN} = 0	–	3.5	6.0	mA
Voltage Gain Open Loop	G_{VO}	V_{IN} = –85dBm, f = 1kHz	87	92	–	dB
Closed Loop	G_V	V_{OUT} = 7V_{rms}, f = 1kHz	38	40	42	dB
Maximum Output Voltage	V_{OM}	f = 1kHz, THD = 0.1%	7.0	9.0	–	V_{rms}
Equivalent Input Noise Voltage	V_{NI}	RIAA Equalizer, R_g = 2.2kΩ, f = 1kHz	–	0.8	1.8	μV_{rms}

Pin Connection Diagram
(Front View)