



**ELECTRONICS, INC.**  
44 FARRAND STREET  
BLOOMFIELD, NJ 07003  
(973) 748-5089

## NTE1085 Integrated Circuit Low Noise Audio Preamp

**Features:**

- Low Noise:  $V_{NI} = 0.8\mu V_{rms(Typ)}$
- 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:** ( $T_A = +25^\circ C$  unless otherwise specified)

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

**Electrical Characteristics:** ( $V_{CC} = 35V$ ,  $T_A = +25^\circ C$  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	$G_{VO}$	Open Loop	87	92	-	dB
		Closed Loop	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, $R_g = 2.2k\Omega$ , $f = 1kHz$	-	0.8	1.8	$\mu V_{rms}$



**Pin Connection Diagram**  
(Front View)

