



ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748-5089
<http://www.nteinc.com>

NTE1223

Integrated Circuit

Low Noise High Gain Pre-Amplifier Circuit

For General Purpose Audio Pre-Amplifiers

Features:

- External initial stage emitter resistor which determines feedback voltage gain and assures better temperature characteristics.

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

Supply Voltage, V_{CC} 20V
Supply Current, I_{CC} 5mA
Power Dissipation ($T_A \leq 75^\circ\text{C}$), P_D 100mW
Operating Ambient Temperature Range, T_{opr} -20° to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg} -55° to $+125^\circ\text{C}$

Electrical Characteristics: ($V_{CC} = 9\text{V}$, $f = 1\text{kHz}$, $T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Circuit Current	I_{tot}		–	1.3	2.3	mA
Closed Circuit Voltage Gain	G_{vo}	$V_i = 0.1\text{mV}$	75	80	–	dB
Output Voltage (AC)	V_o	THD = 1%	1.5	2	–	V_{rms}
Total Harmonic Distortion	THD	$V_o = 0.3\text{V}$	–	0.07	0.2	%
Input Resistance	R_i		–	130	–	$k\Omega$
Input Referred Noise Voltage	V_{ni}	$R_g = 2.2k\Omega$	–	0.8	1.5	μV_{rms}

Pin Connection Diagram (Front View)

