



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

## NTE1083

### Integrated Circuit

### Hybrid, Dual High Gain Pre-Amplifier

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

Power Dissipation, $V_{CC}$	28V
Collector Current, $I_{CC}$	5mA
Input Voltage, $V_I$	1V
Operating Temperature Range, $T_{opr}$	$-20^\circ$ to $+65^\circ\text{C}$
Storage Temperature Range, $T_{stg}$	$-30^\circ$ to $+80^\circ\text{C}$

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 12\text{V}$ , unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Open Loop Voltage Gain	$A_{VO}$	$f = 1.0\text{KHz}$ , $R_L = 33\text{k}\Omega$	60	64	—	dB
Max. Output Voltage	$V_{OMAX}$		2.2	2.5	—	V
Noise Level	NL		—	—	60	$\mu\text{V}$
Total Harmonic Distortion	THD	$V_O = 1V_{rms}$ , $f = 1\text{KHz}$ , $R_L = 33\text{k}\Omega$	—	—	0.1	%
Input Resistance	$r_i$	$f = 1\text{KHz}$ , $R_L = 33\text{k}\Omega$	100	120	—	$\text{k}\Omega$
Output Resistance	$r_o$	$f = 1\text{KHz}$	—	40	100	$\Omega$
			-60	—	—	dB
Supply Current	$I_{CC}$		—	—	670	$\mu\text{A}$

**Pin Connection Diagram**

