



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

NTE1053

Integrated Circuit

AF High Gain Preamplifier

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

Supply Voltage, V_{CC}	7V
Circuit Voltage	
V_{3-2}, V_{5-2}	9.5V
V_{8-7}, V_{9-10}	6V
Supply Current,	
I_3	20mA
I_4, I_7	3mA
$-I_9, -I_{10}$	10mA
Load Resistance, R_L	3k Ω Min.
Power Dissipation, P_T	160mW
Operating Temperature Range, T_{opt}	-20° to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg}	-20° to $+80^\circ\text{C}$

Electrical Characteristics: ($T_A = 25^\circ\text{C}$, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
DC Current Gain	h_{FE}	$I_{10} = 100\mu\text{A}, V_{10-7} = 0\text{V}$	40	–	–	
	V_{3-2}	$I_3 = 7\text{mA}, V_{5-2} = 7\text{V}$	–	0.8	1.2	V
		$V_{CC} = 7\text{V}, I_9 = 200\mu\text{A}$	3.4	3.8	4.2	V
Voltage Gain	G_V	$V_{CC} = 7\text{V}, V_O = 1\text{V}, f = 1\text{kHz}$	93	–	–	dB
	NF	$V_{CC} = 7\text{V}, R_s = 2\text{k}\Omega,$ $f = 30 \text{ to } 15000\text{Hz}$	–	2.5	4	dB

Pin Connection Diagram

