

## NTE1477 Integrated Circuit 2 Channel Amplifier for Headphone Use

**Description:**

The NTE1477 is a integrated circuit in a 14-Lead DIP type package suitable for use as a headphone driving amplifier in the output amplifier of a tape deck or a tuner.

**Features:**

- Wide Operating Voltage Range
- Small Pop Noise by Means of Emitter Feedback
- Dual Amplifier Involved–Few Peripheral Parts
- Small Output Noise Voltage

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

Maximum Supply Voltage,  $V_{CCmax}$  ..... 22V  
 Maximum Supply Current (only Pin2: flow-in; Pin7, 8: flow-out),  $I_{CP}$  ..... 0.5A  
 Allowable Power Dissipation,  $P_{Dmax}$  ..... 1.05W  
 Operating Temperature Range,  $T_{opr}$  .....  $-20^\circ$  to  $+70^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-40^\circ$  to  $+150^\circ\text{C}$

**Recommended Operating Condition:** ( $T_A = 25^\circ\pm\text{C}$ )

Recommended Supply Voltage,  $V_{CC}$  ..... 14V  
 Load Resistance,  $R_L$  .....  $8\Omega$  or  $200\Omega$

**Operating Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 14\text{V}$ ,  $R_L = 8\Omega$   $f = 1\text{kHz}$ ,  $R_g = 600\Omega$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	$I_{CCO}$		6	8	15	mA
Voltage Gain	$V_G$	$V_O = 77.5\text{mV}$	7	9	11	dB
Output Voltage	$V_O$	THD = 10%	0.58	0.68	–	V
Total Harmonic Distortion	THD	$V_O = 0.1\text{V}$	–	0.5	1.0	%
Input Resistance	$r_i$	$V_O = 0.2\text{V}$	20k	30k	40k	$\Omega$
Output Noise Voltage	$V_{NO}$	$R_g = 1\text{k}\Omega$ , filter: 15 to 30kHz	–	6	18	$\mu\text{V}$
Channel Separation		$R_g = 1\text{k}\Omega$	–50	–68	–	dB
Gain Difference			–	–	1	dB

### Pin Connection Diagram

