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## NTE7199 Integrated Circuit 3W Monaural Power Amplifier

**Description:**

The NTE7199 is a 3W monaural power amplifier integrated circuit in a 10-Lead SIP type package designed for use as an audio output power amplifier in TV sets. This device features a built- in electronic volume control circuit and requires a minimum number of expenat components.

**Features:**

- 3W Nominal Power Amplifier ( $V_{CC} = 16V$ ,  $R_L = 8\Omega$ )
- Electronic Volume Control Circuit
- Input Selector Switch

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

Maximum Supply Voltage ( $R_g = 0$ , No Signal),  $V_{CCmax}$  ..... 24V  
 Allowable Power Dissipation (With an Infinity Large Heat Sink),  $P_dmax$  ..... 7W  
 Operating Temperature Range,  $T_{opr}$  .....  $-20^\circ$  to  $+75^\circ C$   
 Storage Temperature Range,  $T_{stg}$  .....  $-40^\circ$  to  $+150^\circ C$   
 Thermal Resistance, Junction-to-Case,  $R_{thJC}$  .....  $10^\circ C/W$

**Recommended Operating Conditions:** ( $T_A = +25^\circ C$  unless otherwise specified)

Recommended Supply Voltage,  $V_{CC}$  ..... 16V  
 Recommended Load Resistance,  $R_L$  .....  $8\Omega$

**Electrical Characteristics:** ( $T_A = +25^\circ C$ ,  $V_{CC} = 16V$ ,  $R_L = 8\Omega$ ,  $f = 1kHz$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	$I_{CCO}$	$R_g = 0$ , $V_5 = 0V$	18	35	70	mA
Voltage Gain	$V_G$	$V_O = 0dBm$ , $V_5 = 5V$	32	34	36	dB
Total Harmonic Distortion	THD	$P_O = 1W$ , $V_5 = 5V$	-	0.6	1.2	%
Output Noise Voltage	$V_{NO}$	$R_g = 0$ , $V_5 = 0V$ , DIN Audio	-	0.05	0.5	mV
Output Power	$P_O$	THD = 10%, $V_5 = 5V$	2.5	3.0	-	W
Maximum Attenuation	ATT	$V_{IN} = 100mV_{rms}$ , $V_5 = 0V$ , DIN Audio	-70	-80	-	dBm
Input Resistance	$R_i$		30	40	50	k $\Omega$

### Pin Connection Diagram (Front View)

