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## NTE1185 Integrated Circuit Audio PreAmp

**Features:**

- Wide Range of Operating Supply Voltage
- High Gain, High Output Power
- Low Distortion and Noise
- Excellent Hum Rejection
- Extremely High Resistance to Damage from Short Circuit of a Load

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

Supply Voltage, $V_{CC1}$ .....	27V
Supply Voltage (Note 1), $V_{CC2}$ .....	14V
Supply Current, $I_{CC(\text{peak})}$ .....	1.5A
Power Dissipation, $P_D$ .....	7.8W
Operating Temperature Range (Note 1), $T_{\text{opt}}$ .....	$-20^\circ$ to $+75^\circ\text{C}$
Storage Temperature Range, $T_{\text{stg}}$ .....	$-40^\circ$ to $+150^\circ\text{C}$

Note 1. 100 x 100 x 1mm Al heat sink.

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 18\text{V}$ ,  $f = 1\text{kHz}$ ,  $R_L = 8\Omega$ ,  $A_V = 52\text{dB}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Current	$I_{CC}$	$V_1 = 0$	25	35	45	mA
Output Power	$P_O$	THD = 10%	3.0	3.5	-	W
Voltage Gain	$A_V$	$P_O = 0.5\text{W}$	49	-	56	dB
Output Current	$I_{\text{OUT}}$	$V_{CC} = 12\text{V}$	-	2.5	-	mA
Total Harmonic Disorder	THD	$P_O = 0.5\text{W}$	0.65	1.8	-	%
Input Resistance	$R_{\text{in}}$		-	20	-	k $\Omega$
Noise Level	NL	$R_G = 0\Omega$	-	0.36	0.80	mV <sub>rms</sub>
Voltage Switch ON	$V_{\text{ON}}$	$R_G = 0\Omega$ , $V_{CC}$ OFF - ON	-	0.4	-	V <sub>p-p</sub>
Voltage Switch OFF	$V_{\text{OFF}}$	$R_G = 0\Omega$ , $V_{CC}$ ON - OFF	-	0.1	-	V <sub>p-p</sub>

**Pin Connection Diagram**  
(Front View)

