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## NTE1707 Integrated Circuit AF Power Amp, 5.5W/Channel

**Features:**

- Dual Channels – 5.5W/Channel Typical
- Minimum Number of External Parts Required
- Low Pop Noise at the time of Power Supply ON/OFF and Good Starting Balance
- Good Ripple Rejection – 46dB Typical
- Good Channel Separation
- Low Residual Noise ( $R_g = 0$ )
- Built-In Protectors:
  - a. Thermal Protector
  - b. Overvoltage, Surge Protector
  - c. Adjacent Pins (9–10, 9–8) Short Circuit Protector

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

Supply Voltage,	
Quiescent ( $t = 30\text{sec}$ ), $V_{CC\text{max}1}$ .....	25V
Operating, $V_{CC\text{max}2}$ .....	18V
Surge Supply Voltage ( $t \leq 0.2\text{sec}$ ), $V_{CC(\text{surge})}$ .....	50V
Output Current (1 Channel), $I_{O\text{peak}}$ .....	3.5A
Allowable Power Dissipation, $P_{D\text{max}}$ .....	15W
Operating Temperature Range, $T_{\text{opg}}$ .....	$-20^\circ$ to $+75^\circ\text{C}$
Storage Temperature Range, $T_{\text{stg}}$ .....	$-40^\circ$ to $+150^\circ\text{C}$

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

Supply Voltage, $V_{CC}$ .....	13.2V
Load Resistance (2 Channels), $R_L$ .....	$4\Omega$
Operating Voltage Range .....	10 to 16V



**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 13.2\text{V}$ ,  $R_L = 4\Omega$ ,  $f = 1\text{kHz}$ ,  $R_g = 600\Omega$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	$I_{CCO}$		-	75	150	mA
Voltage Gain	$V_G$		49.5	51.5	53.5	dB
Output Power	$P_O$	THD = 10%, 2 Channels	5.0	5.5	-	W
Total Harmonic Distortion	THD	$P_O = 1\text{W}$	-	0.15	1.0	%
Input Resistance	$r_i$		-	30	-	k $\Omega$
Output Noise Voltage	$V_{NO}$	$R_g = 0$	-	0.6	1.0	mV
		$R_g = 10\text{k}\Omega$	-	1.0	2.0	mV
Ripple Rejection	$R_r$	$R_g = 0$ , $V_R = 200\text{mV}$ , $f_R = 100\text{Hz}$	-	46	-	dB
Channel Separation	ch sep	$R_g = 10\text{k}\Omega$ , $V_O = 0\text{dBm}$	45	55	-	dB

**Pin Connection Diagram**  
(Front View)



