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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_{opg}	-20° to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg}	-40° 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	4Ω
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 Ω
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)



