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NTE7201 Integrated Circuit Stereo Audio Amplifier

Description:

The NTE7201 is a monolithic integrated circuit in a 16-Lead DIP type package designed for use as a dual or bridge power audio amplifier in portable radio cassette players.

Features:

- Dual or Bridge Connection Modes
- Few External Components Required
- Supply Voltage down to 3V
- High Channel Separation
- Very Low Switch ON/OFF Noise
- Soft Clipping
- Thermal Protection

Absolute Maximum Ratings:

Supply Voltage, V_S 15V
 Output Peak Current, I_O 1.5A
 Operating Junction Temperature, T_J +150°C
 Storage Temperature, T_{stg} +150°C
 Thermal Resistance, Junction-to-Case, R_{thJC} 15°C/W
 Thermal Resistance, Junction-to-Ambient (Note 1), R_{thJA} 65°C/W

Note 1. Thermal Resistance, R_{thJA} , is measured with 4sq cm copper area heatsink.

Electrical Characteristics: ($V_{CC} = 9V$, $T_A = +25°C$, Stereo, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Voltage	V_S		3	-	12	V
Quiescent Current	I_Q		-	35	50	mA
Quiescent Output Voltage	V_O		-	4.5	-	V
Voltage Gain Stereo	A_V		43	45	47	dB
Bridge				49	51	
Voltage Gain Difference	ΔA_V		-	-	± 1	dB
Input Impedance	R_i		-	30	-	k Ω

Electrical Characteristics (Cont'd): ($V_{CC} = 9V$, $T_A = +25^{\circ}C$, Stereo, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit		
Output Power (d = 10%) Stereo 8 (per channel)	P _O	V _S = 9V	R _L = 4Ω	1.7	2.3	-	W	
			R _L = 8Ω	-	1.3	-	W	
		V _S = 6V	R _L = 4Ω	0.7	1.0	-	W	
			R _L = 8Ω	-	0.6	-	W	
			R _L = 16Ω	-	0.25	-	W	
			R _L = 32Ω	-	0.13	-	W	
		V _S = 3V	R _L = 4Ω	-	0.1	-	W	
			R _L = 32Ω	-	0.02	-	W	
		V _S = 12V	R _L = 8Ω	-	2.4	-	W	
		Bridge	V _S = 9V	R _L = 8Ω	-	4.7	-	W
			V _S = 6V	R _L = 4Ω	-	2.8	-	W
				R _L = 8Ω	-	1.5	-	W
			V _S = 3V	R _L = 16Ω	-	0.18	-	W
				R _L = 32Ω	-	0.06	-	W
Distortion Stereo	d		V _S = 9V, R _L = 4Ω	-	0.3	1.5	%	
		Bridge		-	0.5	-	%	
Supply Voltage Rejection	SVR	f = 100Hz, V _R = 0.5V, R _g = 0	40	46	-	dB		
Input Noise Voltage	E _{N(IN)}	R _g = 0	-	1.5	3.0	mV		
		R _g = 10 4Ω	-	3	6	mV		
Crosstalk	CT	f = 1kHz, R _g = 10kΩ	40	52	-	dB		

Pin Connection Diagram



