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NTE1606
Integrated Circuit
Dual Audio Power Amplifier, 4W to 7W

Description:
The NTE1606 is an audio power amplifier integrated circuit in a 12–Lead SIP type package specifically designed for cassette radio applications. This device delivers 4.3W per channel under a 12V power supply and 6.8W under a 15V power supply to a 4Ω load.

Features:
- Low Quiescent Current for Efficient Battery Operation
- Audio Muting Circuit Included
- Designed for Low Crossover Distortion Under a Low Idling Current
- No Electrical Isolation Needed for Simple Chassis Mounting
- Internal Thermal Protection

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Operating Supply Voltage 20V
Peak Output Current 4A
Power Dissipation 15W
Operating Temperature Range, T_{opr} . . . . . –20° to +70°C
Storage Temperature Range, T_{stg} . . . . . –55° to +125°C
Junction Temperature, T_J . . . . . +150°C

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Quiescent Current	I_Q	V_{in} = 0		–	36	60	mA
Input Bias Current	I_B	V_{in} = 0		–	–	1.0	μA
Voltage Gain	G_V	V_{in} = 46dB		44	46	48	dB
Difference of Voltage Gain	ΔG_V	V_{in} = –46dBm		–	–	±1.5	dB
Output Power Per Channel	P_{out}	R_L = 4Ω, THD = 10%	V_{CC} = 12V	3.8	4.3	–	W
			V_{CC} = 15V	6.0	6.8	–	W
Total Harmonic Distortion	THD	P_{out} = 0.5W		–	0.25	1.0	%
Noise Output	WBN	R_g = 10kΩ, BW = 20Hz to 20kHz		–	0.4	1.0	mV
Supply Voltage Rejection Ratio	SVR	f = 100Hz, V_{ripple} = 0dBm		40	44	–	dB
Rolloff Frequency	f_H	V_{in} = –46dBm, G_V = 3dB from f = 1kHz Ref		12	20	33	Hz
Crosstalk	CT	V_{in} = –46dBm		–	60	–	dB
Muting Attenuation	ATT	I_{MUTE} = 5mA, V_{in} = –46dBm		–	60	–	dB

Pin Connection Diagram
(Front View)