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NTE1093
Integrated Circuit
High Gain, 1W, Audio Amplifier

Description:
The NTE1093 is a monolithic integrated circuit consisting of a high gain direct–coupled 2 stage pre-amplifier and 1W AF output pushpull power amplifier. It is designed for use in portable tape recorders and radios where low voltage operation and low power consumption is required.

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)
Supply Voltage, V_{CC} 12V
Supply Current, I_{CC} 800mA
Power Dissipation, P_d 1.3W
Operating Temperature, T_{opt} . . . . . –20° to +75°C
Storage Temperature, T_{stg} . . . . . –40° to +150°C

Electrical Characteristics: (V_{CC} = 6V, T_A = +25°C, f = 1kHz, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Current	I_{CC}	V_i = 0	7	12	16	mA
Output Power	P_O	T.H.D. ≤ 10% NFB	0.8	1	–	W
Voltage Gain 1	A_{V1}	V_I = –60dBm	52	58	–	dB
Voltage Gain 2	A_{V2}	V_i = –60dBm	58	65	–	dB
Input Resistance 1	R_{i1}	NFB	–	20	–	kΩ
Input Resistance 2	R_{i2}	NFB	–	20	–	kΩ
Total Harmonic Distortion	T.H.D.	P_O = 50mW	–	0.5	1.5	%
Noise Level	NL	NFB R_G = 1kΩ, R_L = 8Ω	–	0.5	2	μV

Pin Connection Diagram