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NTE1273 Integrated Circuit Dual, Audio Power Amp, 5W/Ch

Description:

The NTE1273 is a bipolar monolithic integrated circuit in a 20-Lead DIP type package. This 2 channel audio power amplifier is ideal for use in high power car radio applications.

Features:

- Low Distortion
- Self centering Bias
- High Peak Output Current
- Dual Channel/BTL Amp Use
- Low Offset Voltage (Between Ch1 and Ch2 DC Voltage)

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

Supply Voltage, V_{CC}	18V
Output Peak Current (Per Channel), $I_{O(\text{Peak})}$	4A
Power Dissipation, P_D	20W
Operating Temperature Range, T_{opr}	-20° to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+150^\circ\text{C}$

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 13.2\text{V}$, $R_L = 4\Omega$, $R_g = 600\Omega$, $R_f = 68\Omega$, $f = 1\text{kHz}$, Dual channel operation, $G_V = 54\text{dB}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_{CCQ}		20	36	70	mA
Output Power	P_O	THD = 10%, Note 1	4.2	4.8	-	W
		BTL, THD = 10%, Note 1	-	15	-	W
		THD = 10%, $R_L = 2\Omega$	-	7.5	-	W
Maximum Output Power	P_{OM}	Dual	-	6	-	W
		BTL	-	20	-	W
Total Harmonic Distortion	THD	Dual, $P_O = 1\text{W}$	-	0.2	0.8	%
Output Noise Voltage	V_{NO}	$R_g = 10\text{k}\Omega$	-	1.2	3.0	mV
		BW = 50Hz to 20kHz	-	1.2	3.0	mV

Note 1. $G_V = 47\text{k}\Omega/R_f$ ($G_{V\text{max}} = 70\text{dB}$)

Electrical Characteristics (Cont'd): ($T_A = +25^\circ\text{C}$, $V_{CC} = 13.2\text{V}$, $R_L = 4\Omega$, $R_g = 600\Omega$, $R_f = 68\Omega$, $f = 1\text{kHz}$, Dual channel operation, $G_V = 54\text{dB}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Channel Separation	CSR	$R_g = 10\text{k}\Omega$, $P_O = +10\text{dBm}$	-	-58	-	dB
Ripple Rejection	RR	$V_{IN} = 0\text{dBm}$, 100Hz , $R_g = 0\Omega$	-	-48	-	dB
Input Resistance	R_{IN}		-	40	-	$\text{k}\Omega$
Voltage Gain	G_{VO}	$R_f = 0\Omega$	70	75	-	dB
		$V_{IN} = -.245\text{mV}_{\text{rms}}$	70	75	-	dB

Pin Connection Diagram

