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NTE1602 Integrated Circuit Power Amplifier for Car Radio, 19W

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

Supply Voltage, V_{CC}	18V
DC Supply Voltage (Note 1), $V_{CC(DC)}$	26V
Peak Supply Voltage (Note 2), $V_{CC(PEAK)}$	50V
Output Current, $I_{O(PEAK)}$	4A
Power Dissipation, P_T	15W
Thermal Resistance Junction to Case, R_{thJC}	3°C/W
Operating Temperature Range, T_{opr}	-20° to $+70^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+125^\circ\text{C}$

Note 1 Value at $t = 30$ sec.

Note 2 Value at width $t_w = 200\text{ms}$ and rise time $t_r = 1\text{ms}$

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 13.2\text{V}$, $f = 1\text{kHz}$, $R_L = 4\Omega$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_Q	$V_{in} = 0$	40	80	180	mA
Input Bias Voltage	V_B		-	20	70	mV
Output Offset Voltage	ΔV_Q		-	-	± 150	mV
Voltage Gain	G_V	$V_{in} = -30\text{dBm}$	41.5	42.5	43.5	dB
Output Power	P_{OUT}	THD = 1%	10	15	-	W
		THD = 10%	-	19	-	W
Total Harmonic Distortion	THD	$P_{OUT} = 1.5\text{W}$	-	0.05	0.12	%
Output Noise Voltage	WBN	$R_g = 4.7\text{k}\Omega$, BW = 20Hz to 20kHz	-	0.30	0.6	mV
Supply Voltage Rejection Ratio	SVR	$f = 500\text{Hz}$. $R_g = 4.7\text{k}\Omega$	35	48	-	dB
Input Resistance	R_{IN}		-	68	-	$\text{k}\Omega$
Rolloff Frequency	Low	$\Delta G_V = -3\text{dB}$ from $f = 1\text{kHz}$ Ref.	-	5	-	Hz
	High		f_L	50	100	200

Pin Connection Diagram

