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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, $R_{thJC}$ .....	$3^\circ\text{C/W}$
Operating Temperature Range, $T_{opr}$ .....	$-20^\circ$ to $+70^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-55^\circ$ 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	$\Delta V_Q$		-	-	$\pm 150$	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	-	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

