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## NTE1028 Integrated Circuit Module, Hybrid, Audio Power Amp 20W

**Description:**

The NTE1028 is a 20 Watt Audio Power Amplifier which requires 2 power supplies.

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

Maximum Supply Voltage,  $V_{CCmax}$  .....  $\pm 32\text{V}$   
 Operating Case Temperature,  $T_C$  .....  $+85^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-30^\circ$  to  $+100^\circ\text{C}$   
 Available Load Shorting Time,  $t_s$  ( $V_{CC} = \pm 26\text{V}$ ,  $f = 50\text{Hz}$ ,  $V_O = 12.7\text{V}/R_L$ ) ..... 2Sec

**Recommended Operation Conditions:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Recommended Supply Voltage,  $V_{CC}$  .....  $\pm 22\text{V}$   
 Load Resistance,  $R_L$  .....  $8\Omega$

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = \pm 22\text{V}$ ,  $R_L = 8\Omega$ ,  $V_G = 26.4\text{dB}$ ,  $R_g = 600\Omega$ ,  $f = 1\text{kHz}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Power	$P_O$	$f = 20\text{Hz}$ to $20\text{kHz}$ , THD = 0.3%	20	-	-	-
		THD = 0.3%	-	23	-	W
		THD = 0.3%, $V_{CC} = \pm 26\text{V}$	-	30	-	-
Total Harmonic Distortion	THD	$f = 20\text{Hz}$ to $20\text{kHz}$ , $P_O = 0.05$ to $20\text{W}$	-	-	0.3	-
		$P_O = 1\text{W}$	-	0.03	-	%
High Level Cut-Off Frequency	$f_{CH}$	$P_O = 1\text{W}$ , $-1\text{dB}$	100	-	-	kHz
Low Level Cut-Off Frequency	$f_{CL}$	$P_O = 1\text{W}$ , $-1\text{dB}$	-	-	10	Hz
Input Resistance	$r_i$	$P_O = 1\text{W}$	-	52	-	$k\Omega$
Output Noise Voltage	$V_{NO}$	$V_{CC} = \pm 26\text{V}$ , $R_g = 10k\Omega$	-	0.3	0.5	$\text{mV}_{rms}$
Supply Current	$I_{CCO}$	$V_{CC} = \pm 26\text{V}$	10	-	50	mA
	$\Delta V_N$	$V_{CC} = \pm 26\text{V}$	-50	-	+50	mV

**Pin Connection Diagram**  
(Front View)

