



ELECTRONICS, INC.  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089  
<http://www.nteinc.com>

## NTE1288 Integrated Circuit Audio Power Amplifier, 10W for Car Radio

**Description:**

The NTE1288 has improved performance with the same pin configuration as the NTE1232. The additional features of the NTE1232; very low number of external components, ease of assembly, space and cost saving, are maintained. The device provides a high output current capability (up to 3.5A), very low harmonic and cross distortion.

Complete safe operation is guaranteed due to protection against DC and AC short-circuit between all pins and GND, thermal over-range, load dump voltage surge up to 40V, polarity inversion and fortuitous open ground.

**Absolute Maximum Ratings:**

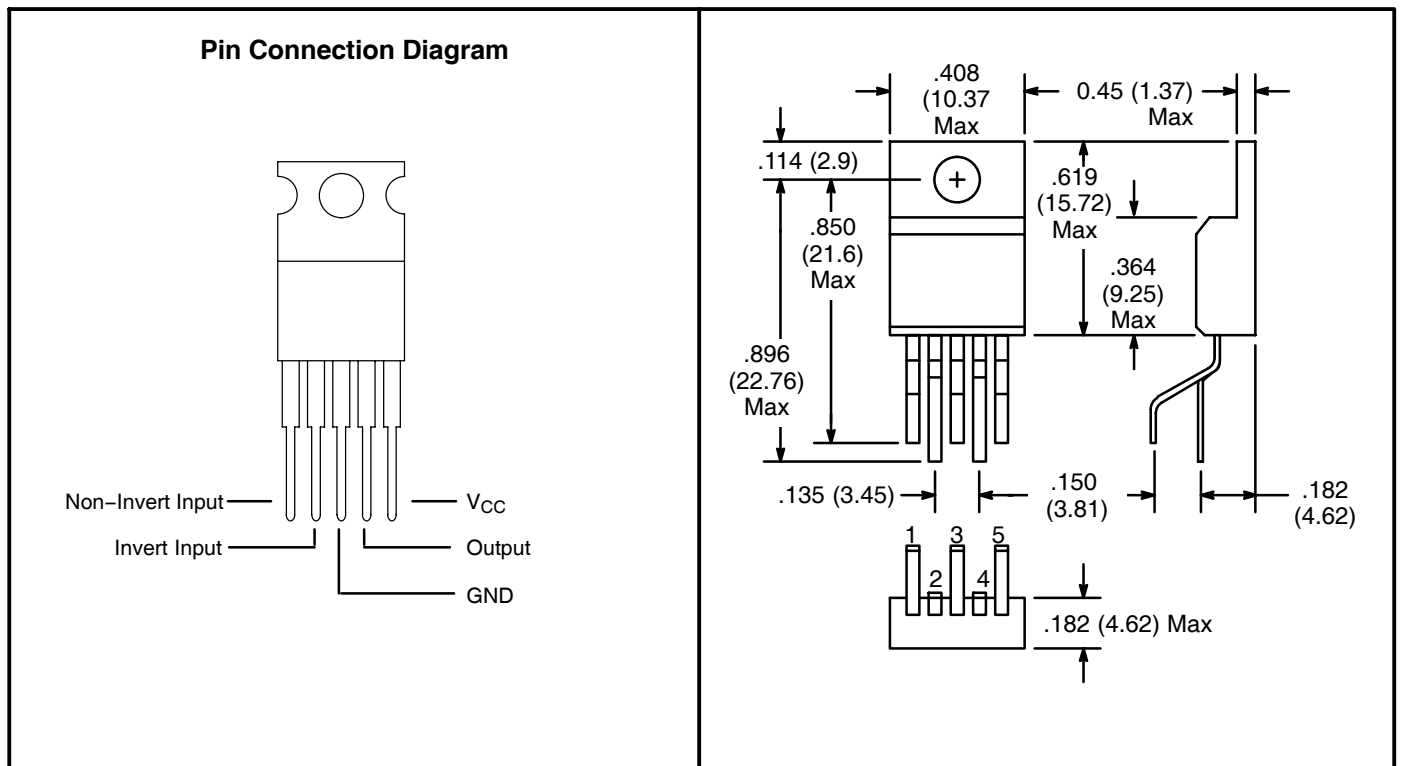
Peak Supply Voltage (50ms), $V_{CC}$ .....	40V
DC Supply Voltage, $V_{CC}$ .....	28V
Operating Supply Voltage, $V_{CC}$ .....	18V
Output Peak Current, $I_O$	
Repetitive .....	3.5A
Non-Repetitive .....	4.5A
Power Dissipation ( $T_C = +90^\circ\text{C}$ ), $P_{tot}$ .....	20W
Operating Junction Temperature Range, $T_J$ .....	-40° to +150°C
Storage Temperature Range, $T_{stg}$ .....	-40° to +150°C
Thermal Resistance, Junction-to-Case, $R_{thJC}$ .....	3°C/W

**Static Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 14.4\text{V}$  unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit
Supply Voltage	$V_{CC}$	8	-	18	V
Quiescent Output Voltage	Pin4 $V_O$	6.1	6.9	7.7	V
Quiescent Drain Current	Pin5 $I_{CC}$	-	44	50	mA

**Dynamic Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 14.4\text{V}$ ,  $A_V = 40\text{dB}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Output Power	$P_O$	$d = 10\%$ , $f = 1\text{kHz}$	$R_L = 4\Omega$	5.5	6.0	-	W
			$R_L = 2\Omega$	9	10	-	W
			$R_L = 3.2\Omega$	-	7.5	-	W
			$R_L = 1.6\Omega$	-	12	-	W
Input Saturation Voltage	$V_I$		300	-	-	mV	
Input Sensitivity	S	$f = 1\text{kHz}$ , $P_O = 500\text{mW}$ , $R_L = 4\Omega$	-	14	-	mV	
		$P_O = 6\text{W}$ , $R_L = 4\Omega$	-	55	-	mV	
		$P_O = 500\text{mW}$ , $R_L = 2\Omega$	-	10	-	mV	
		$P_O = 10\text{W}$ , $R_L = 2\Omega$	-	50	-	mV	
Bandwidth (-3dB)	B	$P_O = 1\text{W}$ , $R_L = 4\Omega$	40 to 15,000			Hz	
Harmonic Distortion	d	$50\text{mW} \leq P_O \leq 4.5\text{W}$ , $R_L = 4\Omega$ , $f = 1\text{kHz}$	-	0.15	-	%	
		$50\text{mW} \leq P_O \leq 7.5\text{W}$ , $R_L = 2\Omega$ , $f = 1\text{kHz}$	-	0.15	-	%	
Input Resistance (Pin1)	$R_I$	$f = 1\text{kHz}$	70	150	-	k $\Omega$	
Voltage Gain Open Loop	$A_V$	$R_L = 4\Omega$ , $f = 1\text{kHz}$	-	80	-	dB	
			Closed Loop	39.5	40.0	40.5	dB
Input Noise Voltage	$V_n$	B (-3dB) = 10Hz to 25kHz, B (-20dB) = 4Hz to 27kHz	-	1	5	$\mu\text{V}$	
Input Noise Current	$i_n$	B (-3dB) = 10Hz to 25kHz, B (-20dB) = 4Hz to 27kHz	-	60	200	pA	
Efficiency	$\eta$	$f = 1\text{kHz}$ , $P_O = 6\text{W}$ , $R_L = 4\Omega$	-	69	-	%	
		$P_O = 10\text{W}$ , $R_L = 2\Omega$	-	65	-	%	
Supply Voltage Rejection	SVR	$f = 100\text{Hz}$ , $V_{\text{ripple}} = 500\text{mV}$ , $R_G = 10\text{k}\Omega$ , $R_L = 4\Omega$	30	36	-	dB	



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Audio Amplifiers](#) category:*

*Click to view products by [NTE manufacturer](#):*

Other Similar products are found below :

[LV47002P-E](#) [AZ386MTR-E1](#) [NCP2890AFCT2G](#) [NTE1192](#) [LC706200CM](#) [IS31AP4915A-QFLS2-TR](#) [TDA1591T](#) [TS2012EIJT](#)  
[NCP2809BMUTXG](#) [NJW1157BFC2](#) [IS31AP4996-GRLS2-TR](#) [NCP2823BFCT1G](#) [BD88420GUL-E2](#) [LA4450L-E](#) [IS31AP2036A-CLS2-TR](#)  
[NTE1110](#) [NTE7100](#) [NTE7114](#) [NTE7163](#) [NTE7168](#) [NTE7177](#) [NTE7178](#) [NTE7186](#) [NTE7198](#) [NTE7202](#) [NTE7217](#) [BD88400GUL-E2](#)  
[BD88200GUL-E2](#) [SABRE9601K](#) [THAT1646W16-U](#) [PAM8965ZLA40-13](#) [TSDP10XX1NLGXZBX](#) [TSDP11XX1NKGIZBX](#)  
[TSDP11XX1NLGXZBX](#) [TSDP10XX1NKGIZBX](#) [NJM4580CV-TE1](#) [NJU7084R-TE1](#) [OPA1655DR](#) [LV4910T-MPB-E](#) [NCP2890AFCT2](#)  
[NCV2211DR2G](#) [SCY99091FCT2G](#) [TAS5720MRSMR](#) [AW87389FCR](#) [AW8737AFRCR](#) [TDA2005R](#) [TDA2030](#) [TDA7265L-J11-A-T](#)  
[CD2050CZ](#) [AW88261FCR](#)