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

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NTE7211 & NTE7212
Integrated Circuit
Class AB Audio Power Amplifier, 2 Channel

Description:

The NTE7211 and NTE7212 are audio power amplifier hybrid integrated circuits in a 15–Lead SIP type package consisting of optimally–designed discrete component power amplifier circuits.

Features:

- Miniature Package
- Available in 2 Different Outputs (THD = 0.4%, f = 20Hz to 20kHz):
  50W/Ch (NTE7211)
  80W/Ch (NTE7212)
- Output Load Impedance: $R_L = 6\Omega$
- Allowable Load Shorted Time: 0.3 seconds
- Supports the Use of Standby, Muting, and Load Shorting Protection Circuits

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Maximum Supply Voltage (No Signal), V_{CC}max
- NTE7211 . . . . . ±54V
- NTE7212 . . . . . ±65V

Maximum Supply Voltage ($R_L = 6\Omega$), V_{CC}max
- NTE7211 . . . . . ±47V
- NTE7212 . . . . . ±57V

Recommended Supply Voltage ($R_L = 6\Omega$), V_{CC}
- NTE7211 . . . . . ±32V
- NTE7212 . . . . . ±39V

Operating Junction Temperature (Note 1), $T_J$max . . . . . +150°C

Operating IC Substrate Temperature (Not 1), $T_C$max . . . . . +125°C

Storage Temperature Range, T_{stg} . . . . . –30° to +125°C

Thermal Resistance, Junction–to–Case (Per Power Transistor), R_{thJC} . . . . . 2.2°C/W

Allowable Load Shorted Time ($R_L = 6\Omega$, f = 50Hz), t_s
- NTE7211 ($V_{CC} = \pm32$V, P_O = 50W) 0.3s
- NTE7212 ($V_{CC} = \pm39$V, P_O = 80W) 0.3s

Note 1. Both the $T_J$max and the $T_C$max conditions must be met.

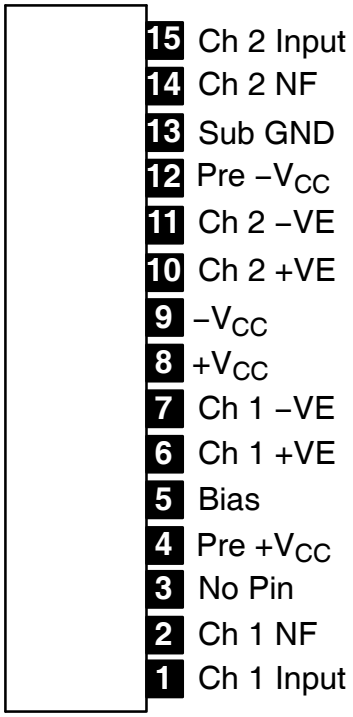
Operating Characteristics: (T_A = +25°C, R_L = 6Ω (non−inductive load), R_g = 600Ω, VG = 30dB, Note 2 unless otherwise specified)

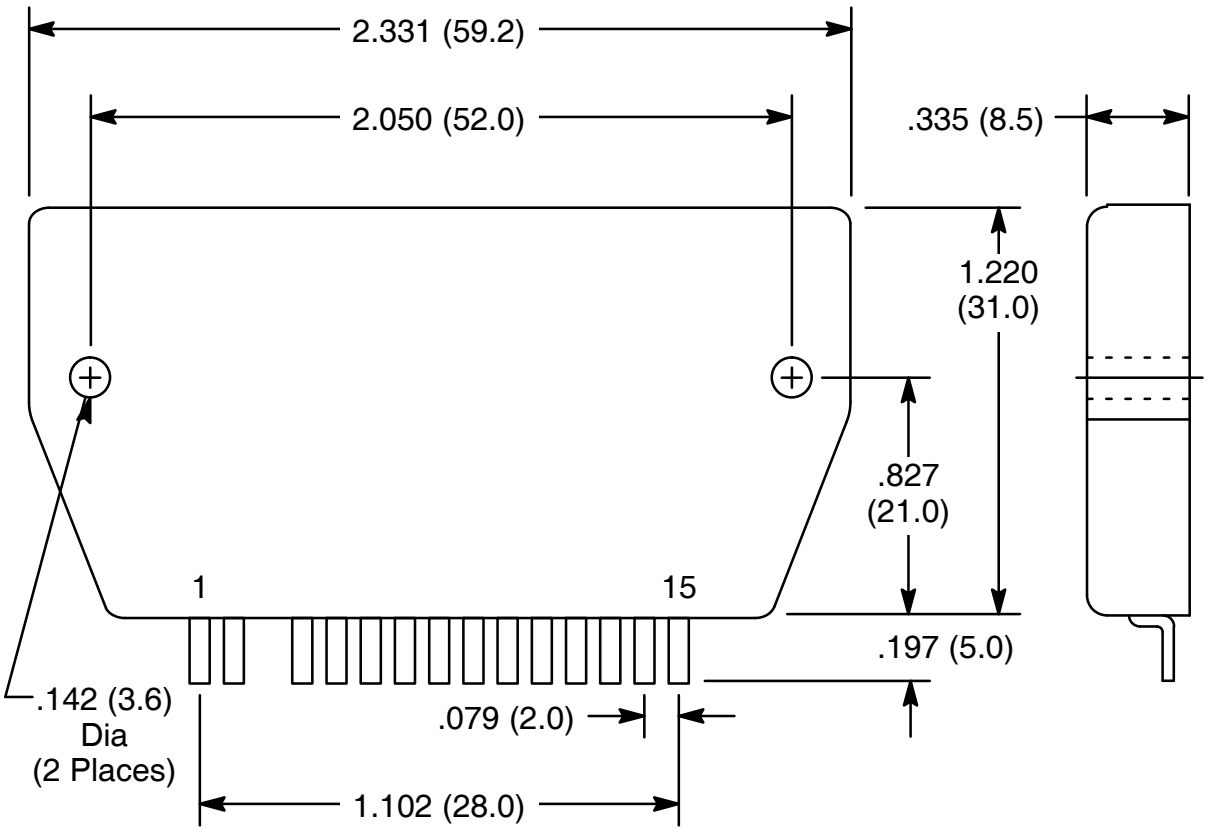
Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Output Power NTE7211	P_O	V_{CC} = ±32V	f = 20Hz to 20kHz, THD = 0.4%	–	50	–	W
			f = 1kHz, THD = 10%	–	80	–	W
NTE7212		V_{CC} = ±39V	f = 20Hz to 20kHz, THD = 0.4%	–	80	–	W
			f = 1kHz, THD = 10%	–	120	–	W
Total Harmonic Distortion	THD	V_{CC} = ±32V, VG = 30dB	f = 20Hz to 20kHz, P_O = 1W	–	–	0.4	%
			f = kkHz, P_O = 5W	–	0.01	–	%
Frequency Characteristics	f_L, f_H	V_{CC} = ±32V, P_O = 1W, +0 −3dB		–	20 to 50k	–	Hz
Input Impedance	r_i	V_{CC} = ±32V, f = 1kHz, P_O = 1W		–	55	–	kΩ
Output Noise Voltage	V_{NO}	V_{CC} = ±39V, R_g = 2.2kΩ, Note 3		–	–	1.2	mV_{rms}
Quiescent Current	I_{CCO}	V_{CC} = ±39V		10	40	80	mA
Neutral Voltage	V_N	V_{CC} = ±39V		−70	0	+70	mV

Note 2. Unless otherwise noted, use a constant−voltage supply for the power supply used during inspection.

Note 3. The output noise voltage values shown are peak values read with a VTM. However, an AC stabilized (50Hz) power supply should be used to minimize the influence of AC primary side flicker noise on the reading.

Pin Connection Diagram
(Front View)




2.331 (59.2)
2.050 (52.0)
.335 (8.5)
1.220
(31.0)
.827
(21.0)
1
15
.197 (5.0)
.142 (3.6)
Dia
(2 Places)
.079 (2.0)
1.102 (28.0)