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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} = ±32V, P_O = 50W) 0.3s
- NTE7212 (V_{CC} = ±39V, P_O = 80W) 0.3s

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

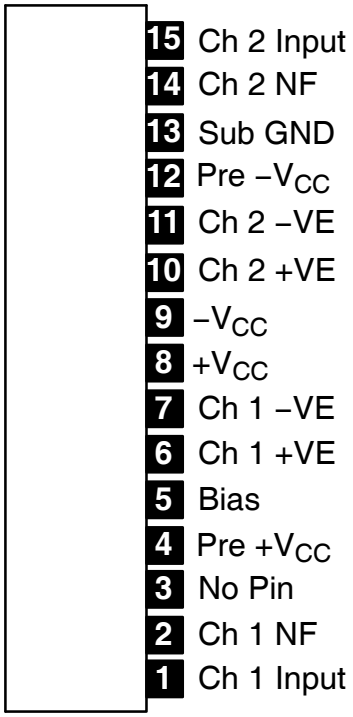
Operating Characteristics: (T_A = +25°C, R_L = 6Ω (non−inductive load), R_g = 600Ω, VG = 30dB, Note 2 unless otherwise specified)

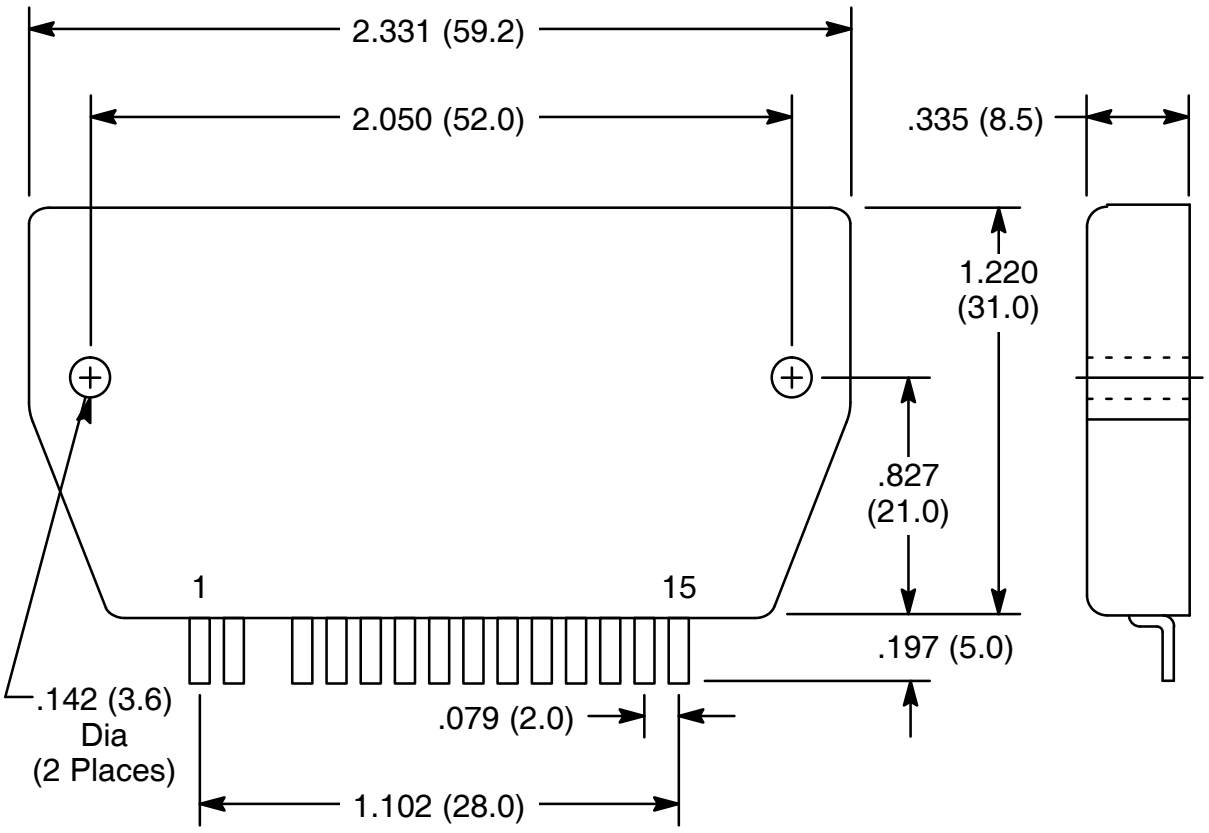
Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Output Power NTE7211	P_O	V_{CC} = ±32V	f = 20Hz to 20kHz, THD = 0.4%	–	50	–	W
			f = 1kHz, THD = 10%	–	80	–	W
NTE7212		V_{CC} = ±39V	f = 20Hz to 20kHz, THD = 0.4%	–	80	–	W
			f = 1kHz, THD = 10%	–	120	–	W
Total Harmonic Distortion	THD	V_{CC} = ±32V, 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)

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2.050 (52.0)
.335 (8.5)
1.220
(31.0)
.827
(21.0)
1
15
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(2 Places)
.079 (2.0)
1.102 (28.0)