ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
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NTE1009
Integrated Circuit
AF Power Amplifier, 1W

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

Maximum Supply Voltage, V_{CC}max 16V
Maximum Power Dissipation (Note 1), $P_D$max 2.8W
Maximum Output Current (Note 1), $I_O$max 1.0A
Operating Temperature Range, T_{opr} . . . . . –20° to +80°C
Storage Temperature Range, T_{stg} . . . . . –40° to +125°C

Note 1. With 100cm^2 x 1mm Al heat sink.

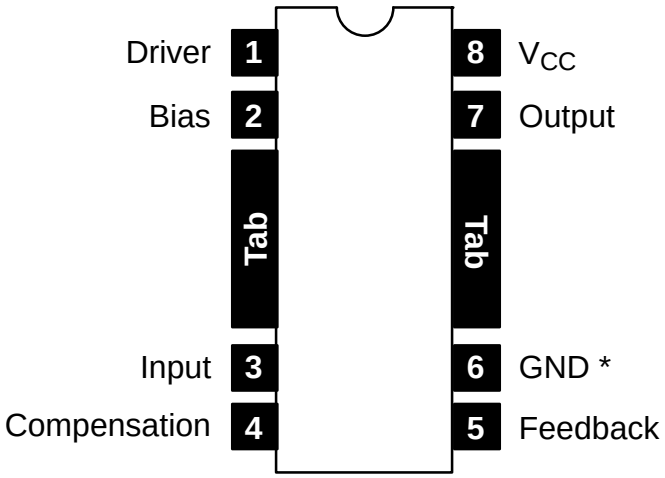
Recommended Operating Conditions: (T_A = +25°C unless otherwise specified)

Recommended Supply Voltage, V_{CC} 11V
Load Resistance, R_L 8Ω

Electrical Characteristics: (T_A = +25°C, V_{CC} = 11V, R_L = 8Ω, f = 1kHz, R_{NF} = 300Ω unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_{CCO}		–	15	25	mA
Voltage Gain	VG		27	30	33	dB
Output Power	P_O	THD = 10%	0.8	1.0	–	W
Efficiency	η	P_O = 1W	–	50	–	%
Total Harmonic Distortion	THD	P_O = 0.5W	–	0.5	1.5	%
Input Resistance	r_i		6k	8k	–	Ω
Output Resistance	r_o		–	0.45	–	Ω
Bandwidth	BW	–3dB	100	–	–	kHz
Output Noise Voltage	V_{NO}		–	–	1.0	mV

Pin Connection Diagram



* NOTE: Connected to Tab