

NTE1685 Integrated Circuit Dual AF Power Amp, 3.5W

Features:

- High Output: 3.5W typ. x 2
- Soft Clip, Causing Little Harmonic Disturbance to Radios
- Small Pop Noise at the Time of Power Switch ON/OFF
- Built-in Protector Against Abnormal Modes (Thermal Shutdown, Overvoltage)

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

Maximum Supply Voltage, V_{CCmax}	25V
Maximum Output Current, I_{Opeak}	2.0A
Allowable Power Dissipation, P_{dmax}	7.5W
Operating Temperature Range, T_{opr}	-20° to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg}	-40° to $+150^\circ\text{C}$

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

Recommended Supply Voltage, V_{CC}	16V
Operating Supply Voltage Range, V_{CC}	9V to 24V
Recommended Load Resistance, R_L	8 Ω

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 16\text{V}$, $R_L = 8\Omega$, $f = 1\text{kHz}$, $R_g = 600\Omega$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_{CCO}		–	46	62	mA
Voltage Gain	V_G		48	50	52	dB
Output Power	P_O	THD = 10%	3.0	3.5	–	W
Total Harmonic Distortion	THD	$P_O = 0.5\text{W}$	–	0.3	1.0	%
Output Noise Voltage	V_{NO}	$R_g = 10\text{k}\Omega$, BW = 20Hz to 20kHz	–	0.65	1.5	mW
Ripple Rejection Ratio	R_r	$R_g = 0$, $V_r = 500\text{mV}$	40	50	–	dB
Crosstalk	CT	$R_g = 10\text{k}\Omega$, BW = 20Hz to 20kHz	40	55	–	dB
Channel Balance	ΔVG		–	–	1.5	dB

Pin Connection Diagram
(Front View)

