NTE ELECTRONICS, INC.
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NTE7030
Integrated Circuit
Module, AF PO, 50W,
Dual Power Supply

Features:
- Small–Sized Package Allows Audio Sets to be made Slimmer
- Facilitates Thermal Design of Slim Stereo Sets
- Constant–Current Circuit Minimizes Pop Noise During Power ON/OFF
- Possible to Design Electronic Supplementary Circuits:
  - Pop Noise Muting During Power ON/OFF
  - Load Short–Circuit Protector
  - Thermal Shutdown

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

Maximum Supply Voltage, V_{CC}max . . . . . ±52V
Junction Temperature, T_J . . . . . +150°C
Operating Case Temperature, T_C . . . . . +125°C
Storage Temperature Range, T_{stg} . . . . . –30° to +125°C
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 1.8°C/W
Available Time for Load Shorted (V_{CC} = ±35V, R_L = 8Ω, f = 50Hz, P_O = 50W), t_s 2sec

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

Recommended Supply Voltage, V_{CC} . . . . . ±35V
Load Resistance, R_L 8Ω

Electrical Characteristics: (T_A = +25°C, V_{CC} = ±35V, R_L = 8Ω (Non–Inductive Load), R_g = 600Ω, V_G = 40dB unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_{CCO}	V_{CC} = ±42V	10	20	50	mA
Output Power	P_O	THD = 0.4%, f = 20Hz to 20kHz	50	–	–	W
		V_{CC} = ±31V, THD = 1%, R_L = 4Ω, f = 1kHz	55	–	–	W
Total Harmonic Distortion	THD	P_O = 1W, f = 1kHz	–	–	0.3	%
Frequency Response	f_L, f_H	P_O = 1W +0dB, –3dB	20 to 50k			Hz
Input Resistance	r_i	P_O = 1W, f = 1kHz	–	55	–	kΩ
Output Noise Voltage	V_{NO}	V_{CC} = ±42V, R_g = 10kΩ, Note 2	–	–	1.2	mV_{rms}
Middle–Point Voltage	V_N	V_{CC} = ±42V	–70	0	+70	mV

Note 1. For power supply at the time of test, use a onstant–voltage power supply unless otherwise specified.

Note 2. The output noise voltage represents the peak value on the RMS scale (V_{TMV}) of average value indicating type. The noise voltage waveform includes no flicker noise.

Pin Connection Diagram
(Front View)