Ordering number:ENN1708B

Thick Film Hybrid IC

STK4040Ⅱ

1ch AF Power Amplifier (Split Power Supply) (70W min, THD = 0.4%)

DISCONTINUED PRODUCT

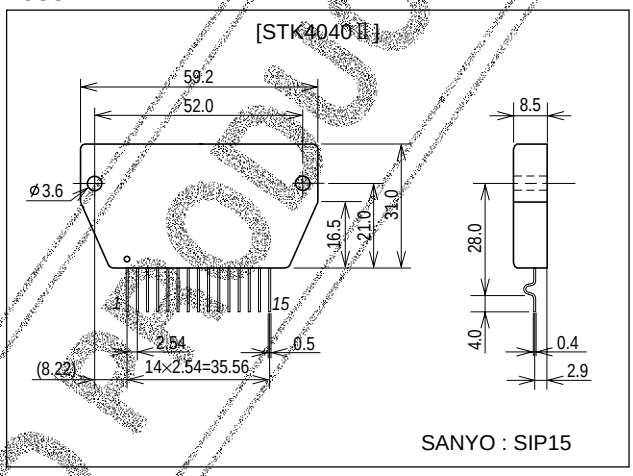
Features

- Compact package for thin-type audio sets
- Member of pin-compatible series with output of 6 to 70W
- Easy heatsink design to disperse heat generated in thin-type stereo sets
- Constant-current circuit to reduce supply switch-on and switch-off shock noise
- Supports external circuits such as supply switch-on and switch-off shock noise muting, load short-circuit protection, thermal shutdown and other circuits.

Package Dimensions

unit:mm

4033



Specifications

Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_{CC} max		±60	V
Thermal resistance	θj-c	Per power transistor	1.5	˚C/W
Junction temperature	Tj		150	˚C
Operating substrate temperature	Tc		125	˚C
Storage temperature	Tstg		–30 to +125	˚C
Available time for load short-circuit[1]	t_S	V_{CC}=±42V, R_L=8Ω, f=50Hz, P_O=70W	1	s

Recommended Operating Conditions at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	V_{CC}		±42	V
Load resistance	R_L		8	Ω

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TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

Operating Characteristics at Ta = 25˚C, V_{CC}=±42V, R_L=8Ω (non-inductive load), Rg=600Ω, VG=40dB

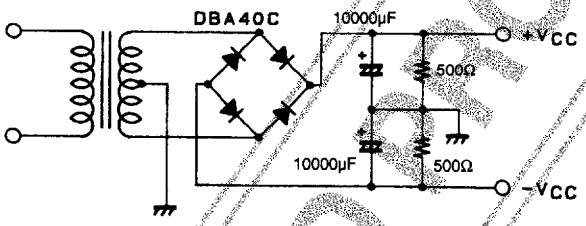
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Quiescent current	I_{CCO}	V_{CC}=±50.5V	10	20	50	mA
Output power	P_O	THD=0.4%, f=20Hz to 20kHz	70			W
Total harmonic distortion	THD	P_O=1.0W, f=1kHz			0.3	%
Frequency response	f_L, f_H	P_O=1.0W, $^{+0}_{-3}$ dB		20 to 50k		Hz
Input resistance	r_i	P_O=1.0W, f=1kHz		55		kΩ
Output noise voltage[2]	V_{NO}	V_{CC}=±50.5V, Rg=10kΩ			1.2	mVrms
Neutral voltage	V_N	V_{CC}=±50.5V	–70	0	+70	mV

Notes.

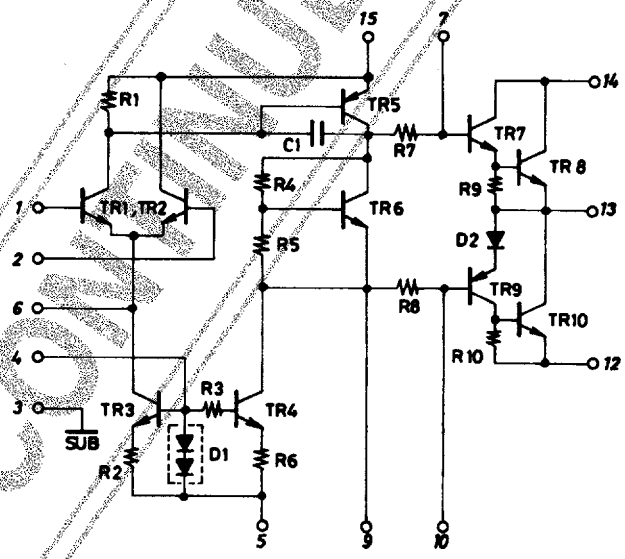
All tests are made using a constant-voltage supply unless otherwise specified.

1. Available time for load short-circuit and output noise voltage are measured using the transformer supply specified below.
2. The output noise voltage is the peak value of an average-reading meter with an rms value scale. The noise voltage waveform does not inlcude any pulse noise.

Specified Transformer Supply (MG-200 or Equivalent)

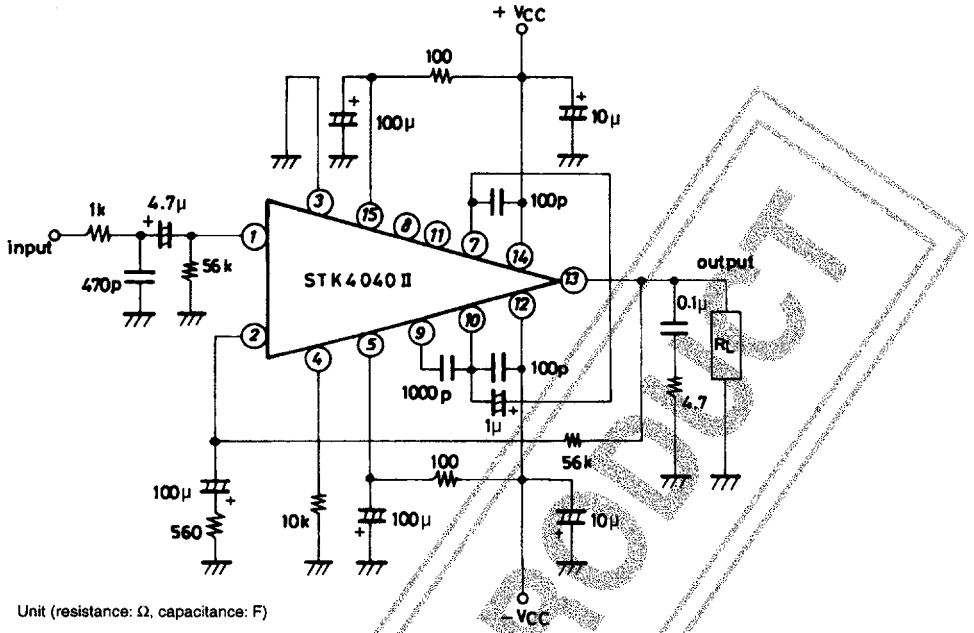


Internal Equivalent Circuit

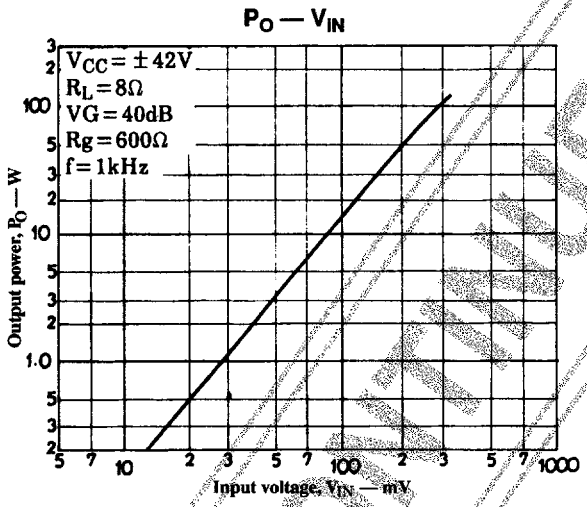


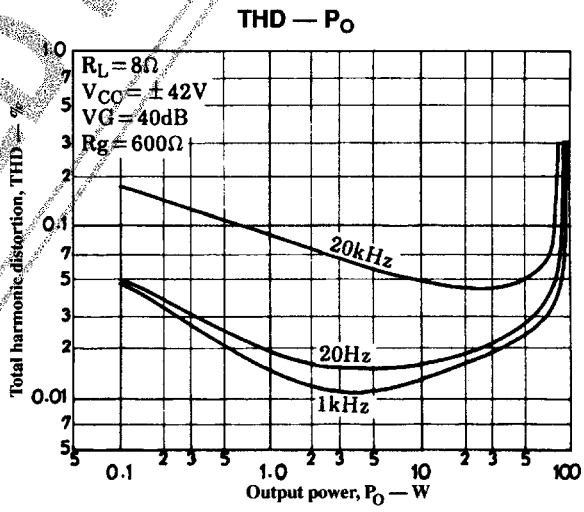
DISCONTINUED PRODUCT

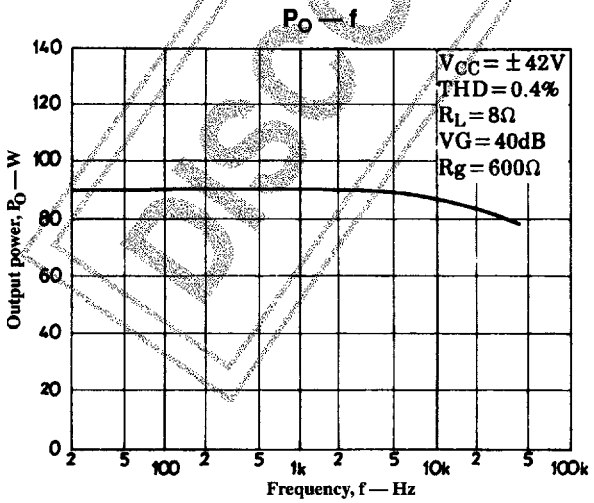
Sample Application Circuit

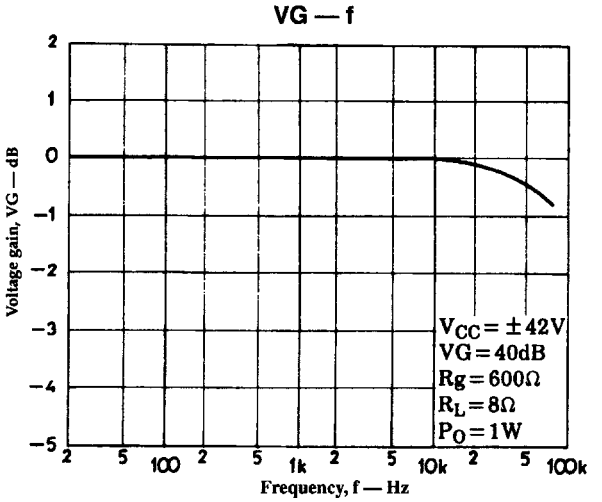


Unit (resistance: Ω, capacitance: F)









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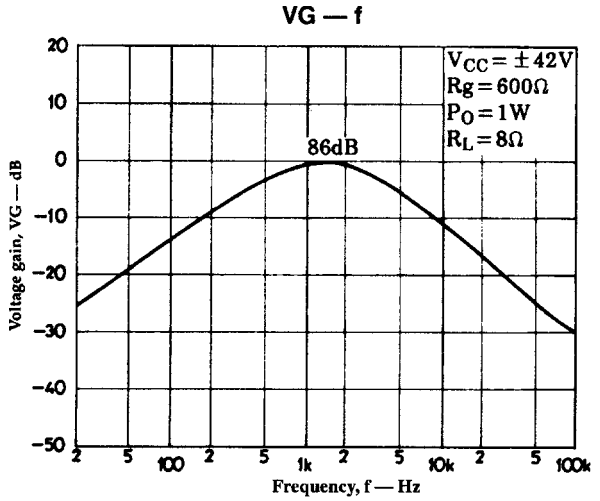

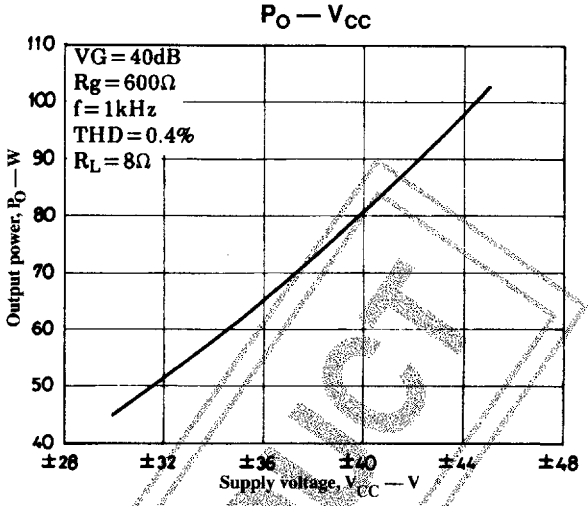

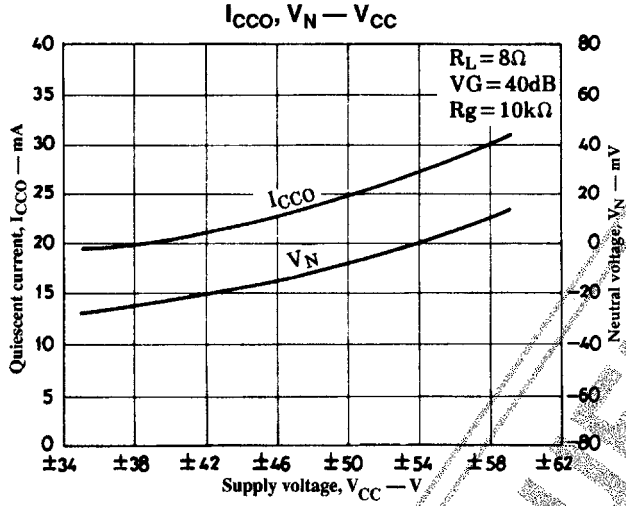

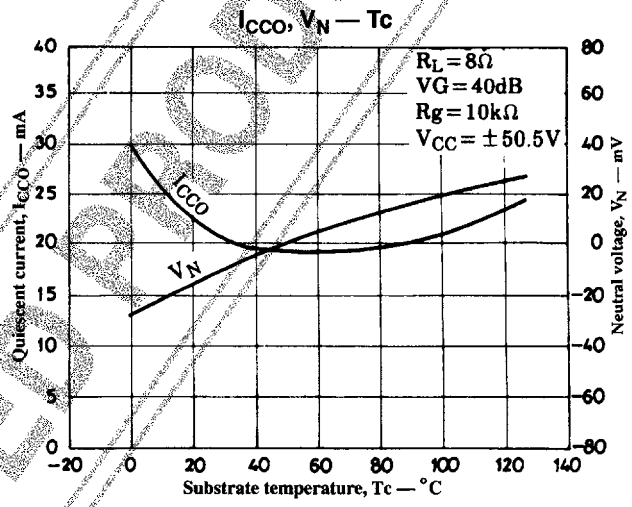

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