

SANYO

No. 1708B

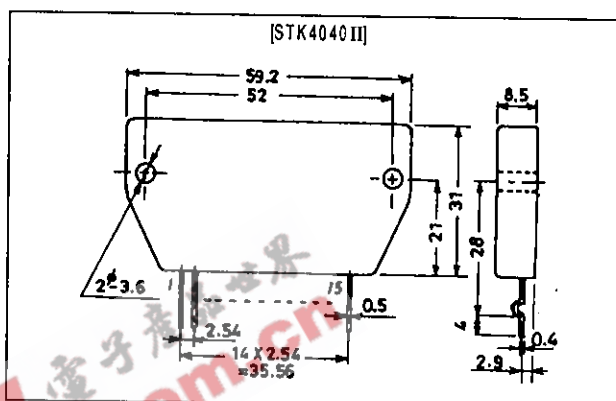
STK4040II**70W min AF Power Amplifier
(Split Power Supply)****Features**

- Compact package for thin-type audio sets
- Member of pin-compatible series with outputs 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	Rating	Unit
Maximum supply voltage	$V_{CC \text{ max}}$		± 60	V
Thermal resistance	θ_{j-c}	Per power transistor	1.5	°C/W
Junction temperature	T_j		150	°C
Operating substrate temperature	T_c		125	°C
Storage temperature	T_{stg}		-30 to +125	°C
Available time for load short-circuit ¹	t_b	$V_{CC} = \pm 42V, R_L = 8\Omega,$ $f = 50Hz, P_O = 70W$	1	s

Recommended Operating Conditions at Ta = 25°C

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

SANYO Electric Co., Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taiho-ku, TOKYO, 110 JAPAN

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Operating Characteristics at $T_a = 25^\circ\text{C}$, $V_{CC} = \pm 42\text{V}$, $R_L = 8\Omega$ (non-inductive load), $R_g = 600\Omega$, $V_G = 40\text{dB}$

Parameter	Symbol	Conditions	min	typ	max	Unit
Quiescent current	I_{CC0}	$V_{CC} = \pm 50.5\text{V}$	10	20	50	mA
Output power	P_O	THD = 0.4%, $f = 20\text{Hz}$ to 20kHz	70	-	-	W
Total harmonic distortion	THD	$P_O = 1.0\text{W}$, $f = 1\text{kHz}$	-	-	0.3	%
Frequency response	f_L, f_H	$P_O = 1.0\text{W}$, $\pm 3\text{dB}$	-	20 to 50k	-	Hz
Input resistance	r_i	$P_O = 1.0\text{W}$, $f = 1\text{kHz}$	-	55	-	k Ω
Output noise voltage ²	V_{NO}	$V_{CC} = \pm 50.5\text{V}$, $R_g = 10\text{k}\Omega$	-	-	1.2	mVrms
Neutral voltage	V_N	$V_{CC} = \pm 50.5\text{V}$	-70	0	+70	mV

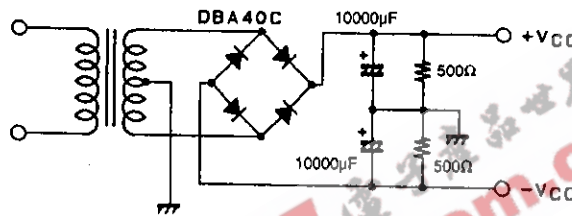
Notes.

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

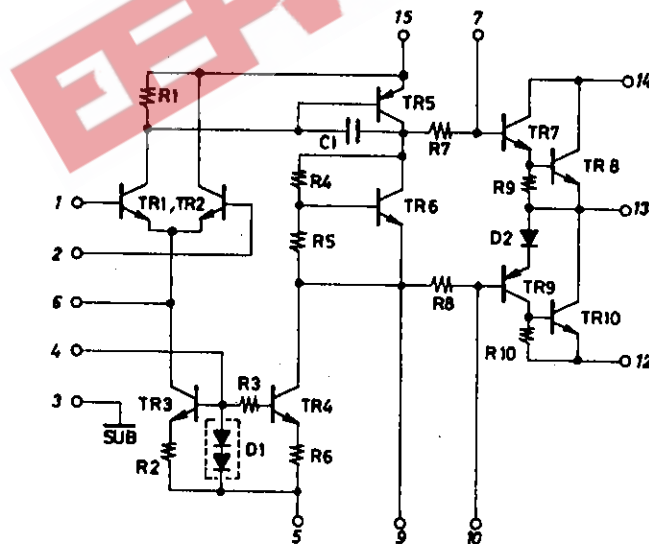
1. Available time for load short-circuit and output noise voltage are measured using the transformer supply specified below.

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 include any pulse noise.

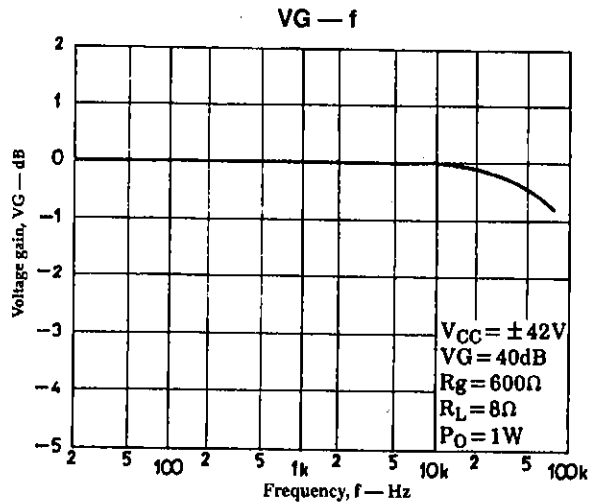
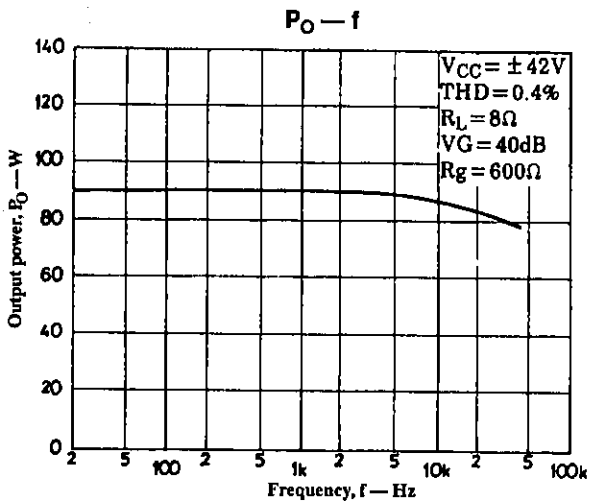
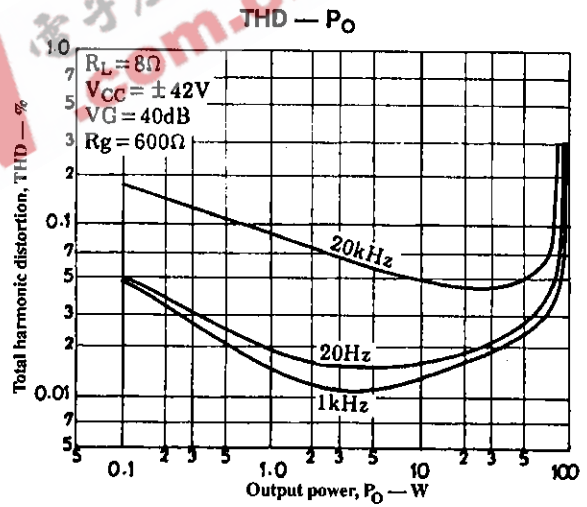
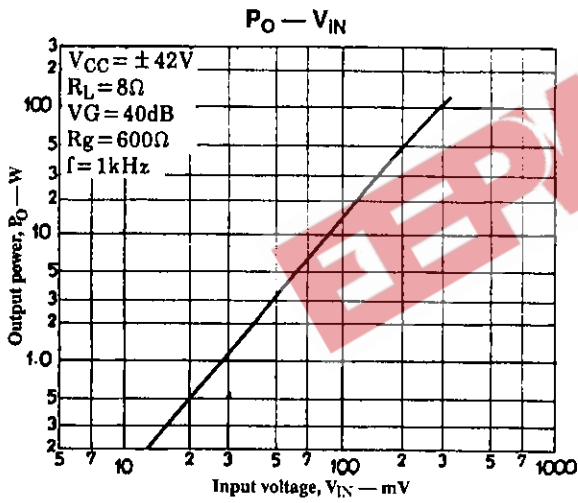
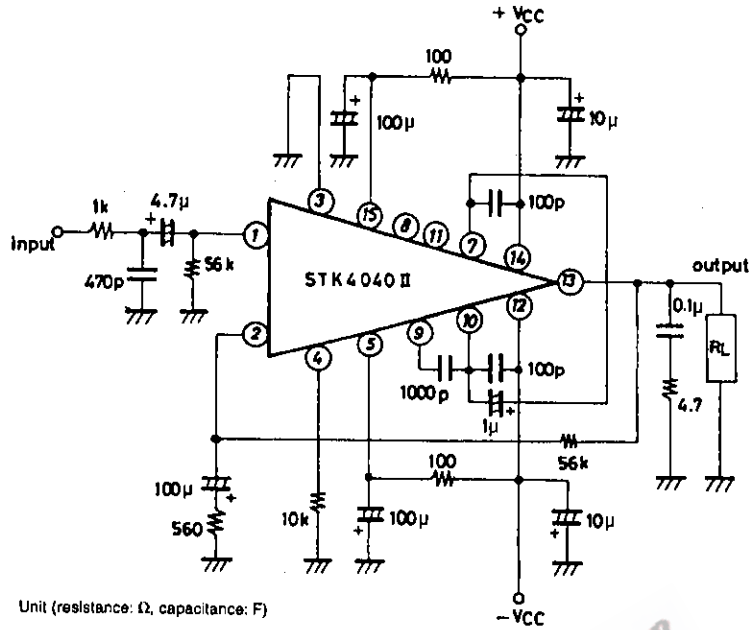
Specified Transformer Supply (MG-200 or Equivalent)



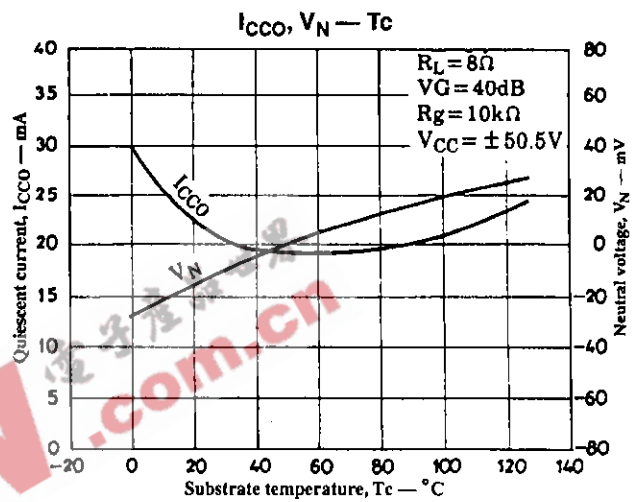
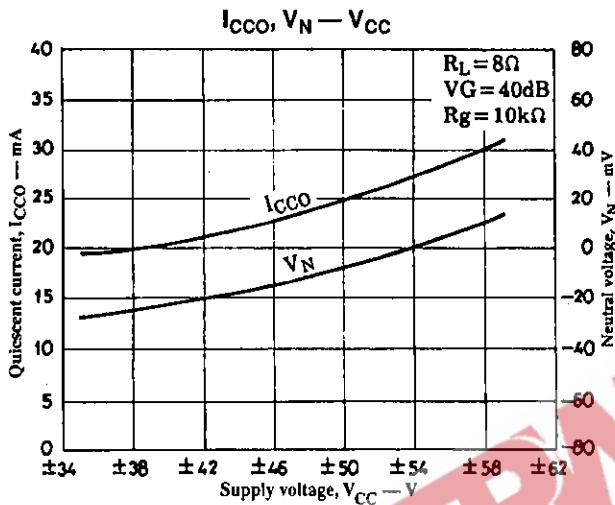
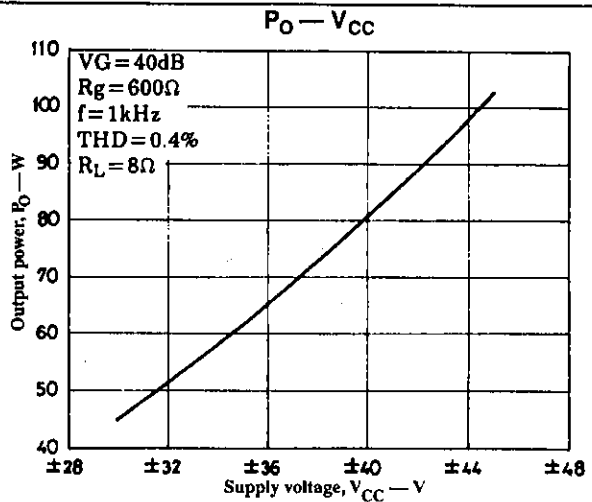
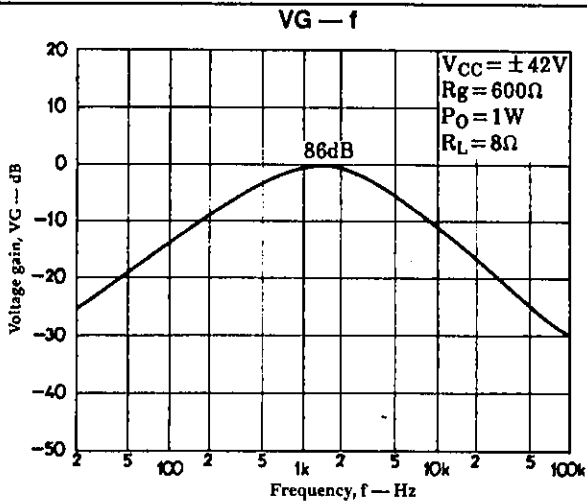
Internal Equivalent Circuit



Sample Application Circuit



STK4040II



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