Ordering number : EN4479A

Thick Film Hybrid IC

SANYO No.4479A

STK4042 II

AF Power Amplifier (Split Power Supply) (80 W min, THD = 0.4%)

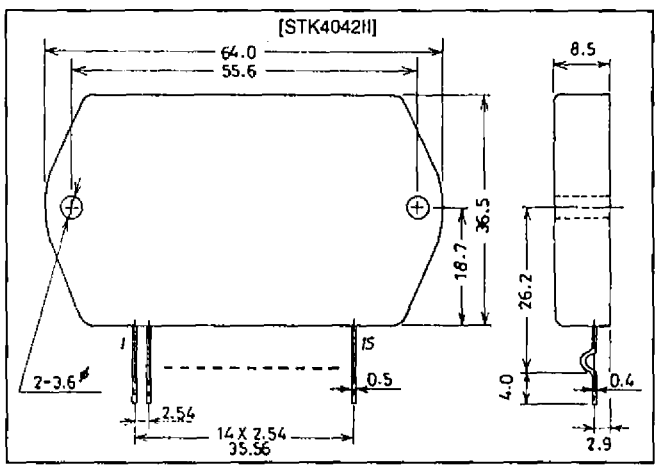
Features

- Miniature package allows audio sets to be made slimmer.
- Pin-compatible amplifiers with outputs of 20 to 200 W are available.
- Facilitates thermal design of slim stereo sets by distributing the heat dissipating ICs in the set.
- The adoption of constant current circuits reduces pop noise when the power supply is turned on or off.
- Supports the design of supplementary electronic circuits (thermal shutdown, load short protection, and pop noise muting at power on and off).

Package Dimensions

unit: mm

4075



Specifications

Maximum Ratings at Ta = 25°C

Parameter	Symbol	Condition	Rating	Unit
Maximum supply voltage	V_{CC} max		±65	V
Thermal resistance	θj-c		1.2	°C/W
Junction temperature	Tj		150	°C
Operating case temperature	Tc		125	°C
Storage temperature	Tstg		−30 to +125	°C
Available time for load shorted	t_S*	V_{CC} = ±45 V, R_L = 8 Ω, f = 50 Hz, P_O = 80 W	2	s

Note: Use a constant voltage power supply as the test power supply unless otherwise specified.
* Use the transformer power supply shown on the next page when measuring the available time for load shorted and the output noise voltage.

Recommended Operating Conditions at Ta = 25°C

Parameter	Symbol	Condition	Rating	Unit
Recommended supply voltage	V_{CC}		±45	V
Load resistance	R_L		8	Ω

Operating Characteristics at Ta = 25°C, V_{CC} = ±45 V, R_L = 8 Ω (noninductive load), Rg = 600 Ω, VG = 40 dB

Parameter	Symbol	Condition	Rating			Unit
			min	typ	max	
Quiescent current	I_{CCO}	V_{CC} = ±54 V	15		120	mA
Output power	P_O	THD = 0.4%, f = 20 Hz to 20 kHz	80			W
Total harmonic distortion	THD	P_O = 1.0 W, f = 1 kHz			0.3	%
Frequency response	f_L, f_H	P_O = 1.0 W, $^{+0}_{-3}$ dB		20 to 50 k		Hz
Input resistance	r_i	P_O = 1.0 W, f = 1 kHz		55		kΩ
Output noise voltage	V_{NO}**	V_{CC} = ±54 V, Rg = 10 kΩ			1.2	mVrms
Neutral voltage	V_N	V_{CC} = ±54 V	−70	0	+70	mV

Note: Use a constant voltage power supply as the test power supply unless otherwise specified.
** The output noise voltage is the peak value measured with an averaging rms scale volt meter. The noise voltage waveform should not include pulse noise.

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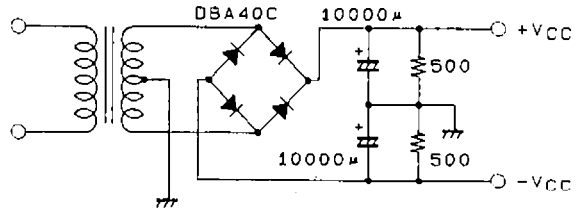
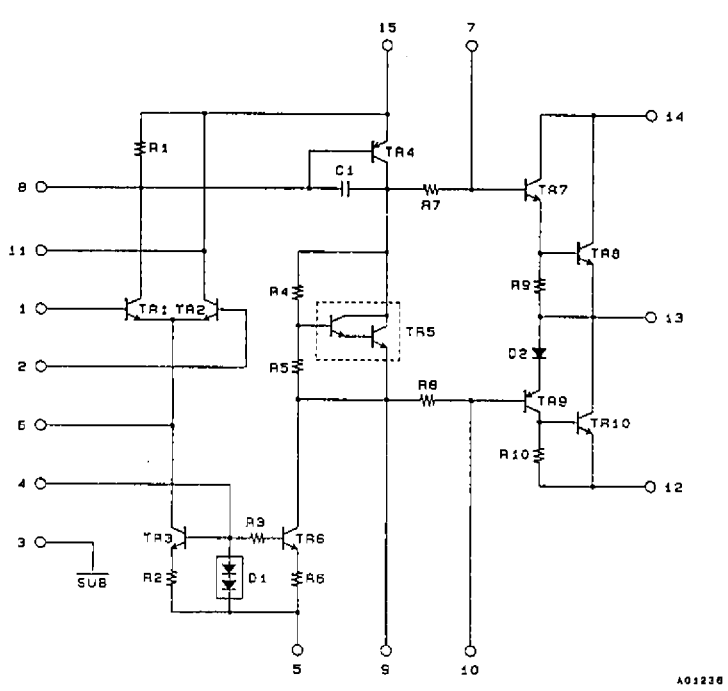


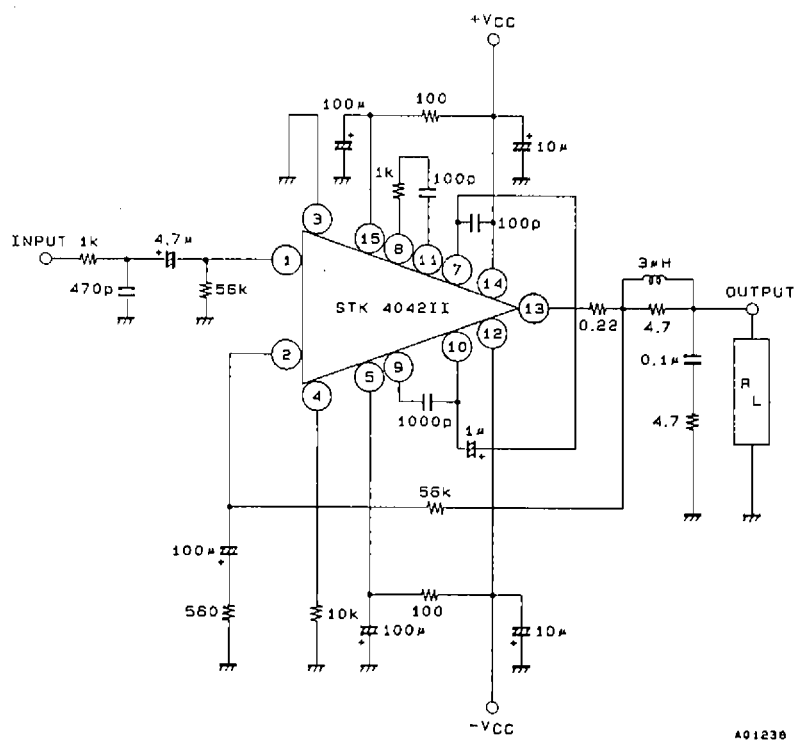
Unit (resistance: Ω, capacitance: F)

Specified Transformer Power Supply (MG-200 equivalent)

Equivalent Circuit



Sample Application Circuit: 80 W (minimum) AF Power Amplifier



Unit (resistance: Ω, capacitance: F)

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