

No.4479A

STK4042 II

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

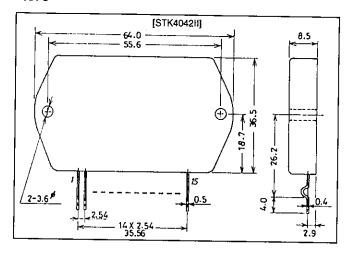
Features

- 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 $Ta = 25^{\circ}C$

Parameter	Symbol	Condition	Rating	Unit
Maximum supply voltage	V _{CC} max		±65	Onn
Thermal resistance	θj-c		 	V
Junction temperature	Ti		1.2	•c/w
Operating case temperature	Tc		150	.€
Storage temperature	Tstg		125	<u>°C</u>
·	 		-30 to +125	°C
Available time for load shorted	ts*	$V_{CC} = \pm 45 \text{ V}, R_L = 8 \Omega, f = 50 \text{ Hz}, P_O = 80 \text{ W}$	2	s

Note: Use a constant voltage power supply as the test power supply unless otherwise specified.

Recommended Operating Conditions at $Ta = 25^{\circ}C$

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Parameter	Symbol	Condition	Rating	Unit
Recommended supply voltage	Voc			——————————————————————————————————————
	v _{CC}	<u> </u>	±45	V
Load resistance	R _L		. 8	0

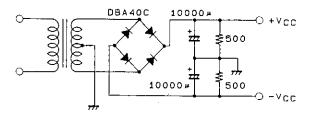
Operating Characteristics at Ta = 25°C, V_{CC} = ±45 V, R_L = 8 Ω (noninductive load), Rg = 600 Ω , VG = 40 dB

Parameter	Symbol	Condition		Rating		
	,		min	typ	max	Unit
Quiescent current	lcco	V _{CC} = ±54 V	15	 	120	mA
Output power	Po	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	$P_0 = 1.0 \text{ W}, ^{+0}_{-3} \text{ dB}$		20 to 50 k		Hz
Input resistance	rį	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	 	+70	mV

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.

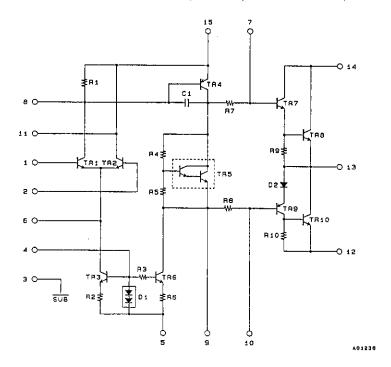
^{**} The output noise voltage is the peak value measured with an averaging rms scale volt meter. The noise voltage waveform should not include pulse noise.



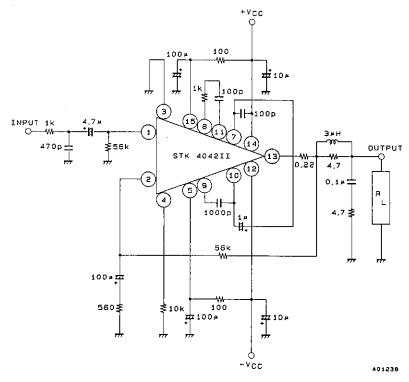
Unit (resistance: Ω , capacitance: F)

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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