

SANYO

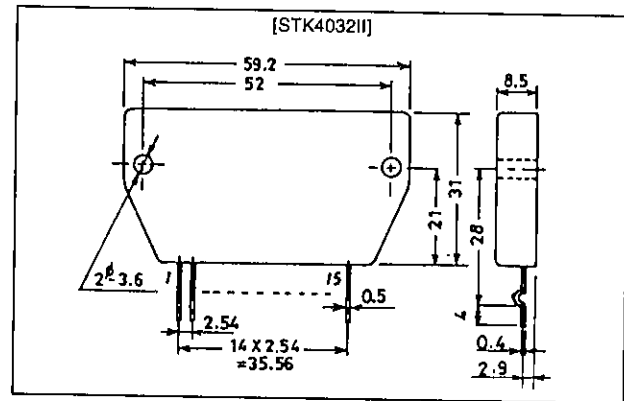
No. 4547A

STK4032 II**AF Power Amplifier (Split Power Supply)
(40 W min, THD = 0.4%)****Features**

- Compact packaging supports slimmer set designs
- Series designed for 20 up to 200 W and pin-compatibility
- Simpler heat sink design facilitates thermal design of slim stereo sets
- The pulse noises associated with turning the power on and off have been reduced by the adoption of fixed current circuits
- Supports addition of electronic circuits for thermal shutdown and load-short protection circuit as well as pop noise muting which occurs when the power supply switch is turned on and off

Package Dimensions

unit: mm

4033**Specifications****Maximum Ratings at Ta = 25°C**

Parameter	Symbol	Condition	Rating	Unit
Maximum supply voltage	V_{CC} max		± 48	V
Thermal resistance	θ_{j-c}		1.8	°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 shorted	t_{s*1}	$V_{CC} = \pm 32$ V, $R_L = 8 \Omega$, $f = 50$ Hz, $P_O = 40$ W	2	s

Recommended Operating Conditions at Ta = 25°C

Parameter	Symbol	Condition	Rating	Unit
Recommended supply voltage	V_{CC}		± 32	V
Load resistance	R_L		8	Ω

Operating Characteristics at Ta = 25°C, $V_{CC} = \pm 32$ V, $R_L = 8 \Omega$, $V_G = 40$ dB, $R_g = 600 \Omega$, R_L (non-inductive)

Parameter	Symbol	Condition	Rating			Unit
			min	typ	max	
Quiescent current	I_{CCO}	$V_{CC} = \pm 38.5$ V	10	20	50	mA
Output power	P_O (1)	THD = 0.4%, $f = 20$ Hz to 20 kHz	40			W
	P_O (2)	$V_{CC} = \pm 29$ V, THD = 1.0%, $R_L = 4 \Omega$, $f = 1$ kHz	45			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, $+0$ dB, -3 dB		20 to 50k		Hz
Input resistance	r_i	$P_O = 1.0$ W, $f = 1$ kHz		55		k Ω
Output noise voltage	$V_{NO} *2$	$V_{CC} = \pm 38.5$ V, $R_g = 10$ k Ω			1.2	mVrms
Neutral voltage	V_N	$V_{CC} = \pm 38.5$ V	-70	0	+70	mV

Note: Use rated power supply for test unless otherwise specified.

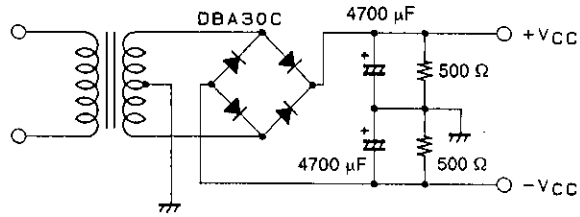
*1. Use the transformer power supply shown on the next page when measuring the available time for load shorted and the output noise voltage.

*2. Output noise voltage represents the peak value on the rms scale (VTVM). The noise voltage waveform does not include the pulse noise.

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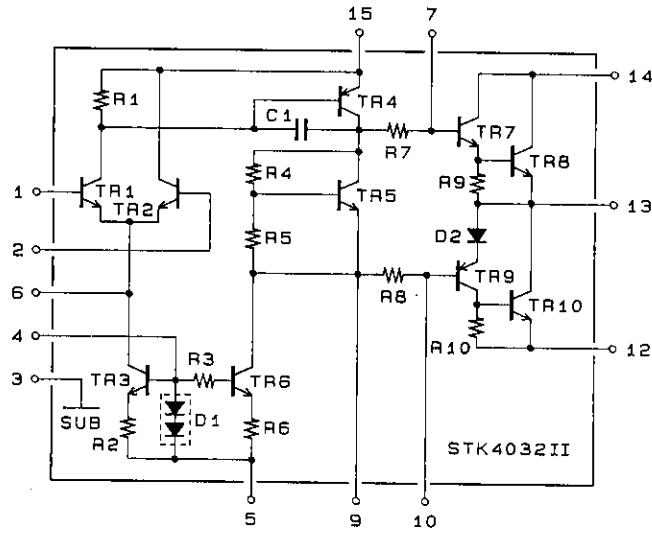
STK4032II



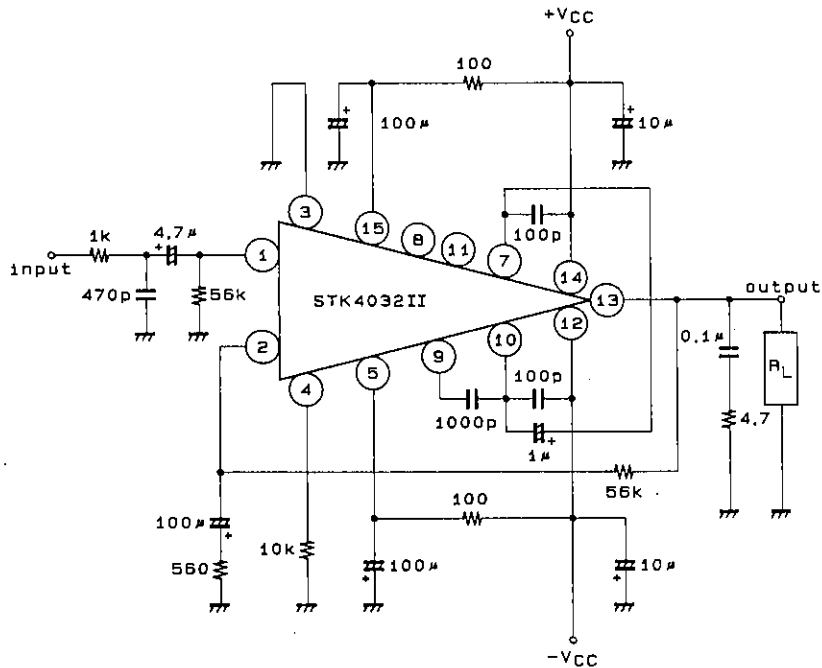
Unit (resistance: Ω, capacitance: F)

Specified Transformer Power Supply
(RP-25 equivalent)

Equivalent Circuit



Application Circuit: 40 W min AF Power Amplifier



Unit (resistance: Ω, capacitance: F)

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