



STK4026 II

AF Power Amplifier (Split Power Supply) (25 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

Specifications

Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V _{CC} max		±38	V
Thermal resistance	θ _{j-c}		2.4	°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} = ±26 V, R _L = 8 Ω, f = 50 Hz, P _O = 25 W	2	s

Recommended Operating Conditions Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	V _{CC}		±26	V
Load resistance	R _L		8	Ω

Operating Characteristics at Ta = 25°C, V_{CC} = ±26 V, R_L = 8 Ω, VG = 40 dB, R_g = 600 Ω, R_L (noninductive)

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Quiescent current	I _{CCQ}	V _{CC} = ±30 V	10	20	50	mA
Output power	P _O (1)	THD = 0.4%, f = 20 Hz to 20 kHz	25			W
	P _O (2)	V _{CC} = ±22 V, THD = 1.0%, R _L = 4 Ω, f = 1 kHz	25			W
Total harmonic distortion	THD	P _O = 1.0 W, f = 1 kHz			0.3	%
Frequency response	f ₁ , f _H	P _O = 1.0 W, ⁺⁰ / ₋₃ dB		20 to 50k		Hz
Input resistance	r _i	P _O = 1.0 W, f = 1 kHz		55		kΩ
Output noise voltage	V _{NO} *2	V _{CC} = ±30 V, R _g = 10 kΩ			1.2	mVrms
Neutral voltage	V _N	V _{CC} = ±30 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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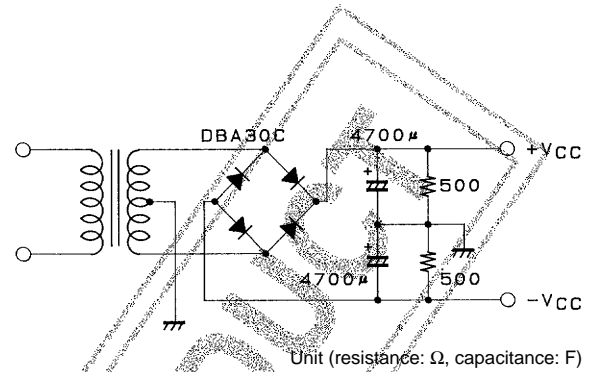
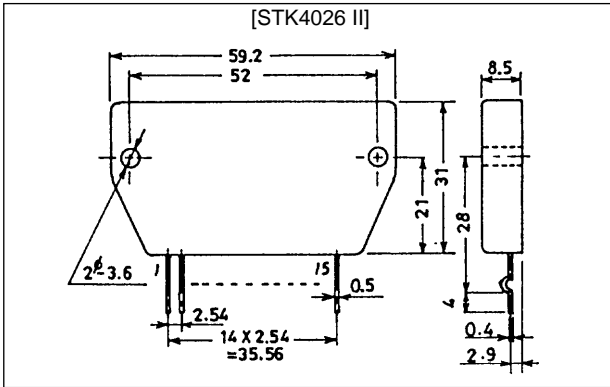
SANYO Electric Co., Ltd. Semiconductor Business Headquarters

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

Package Dimensions

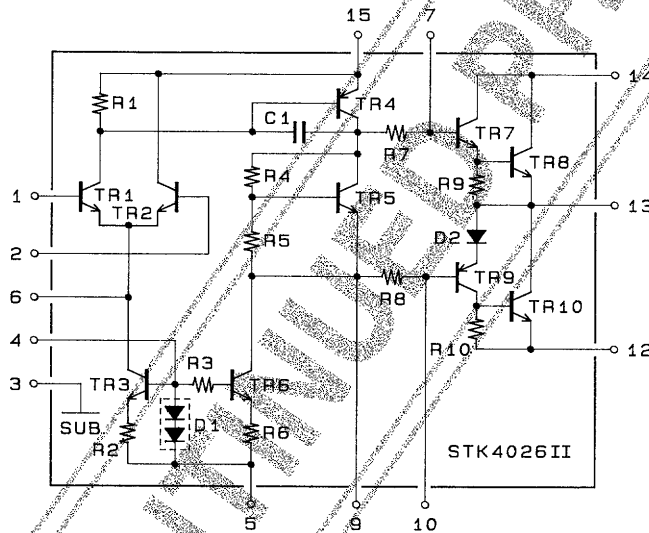
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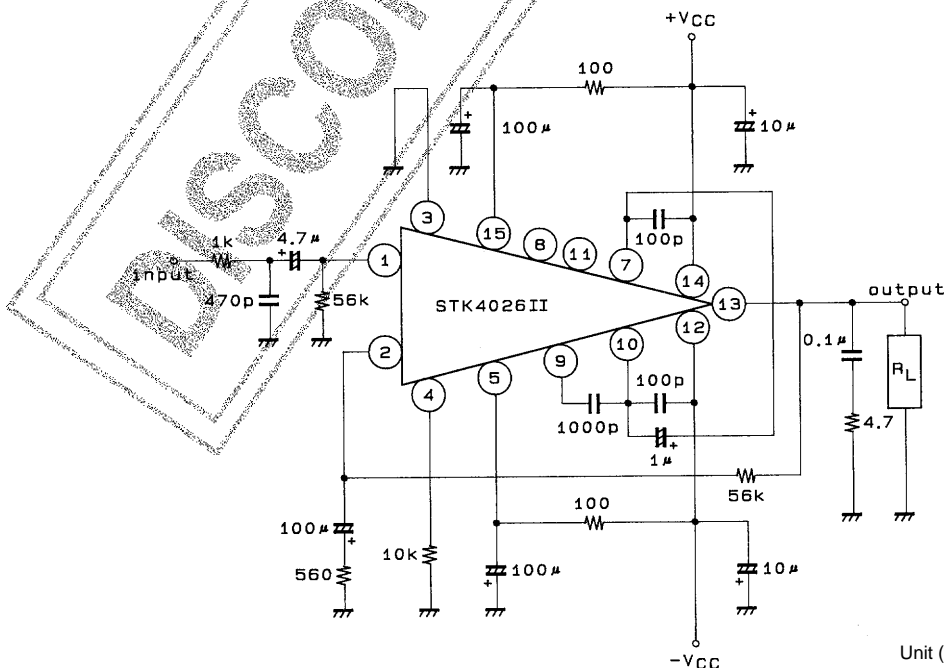


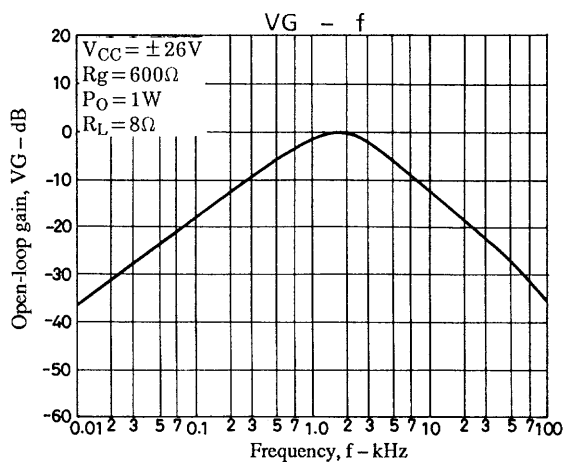
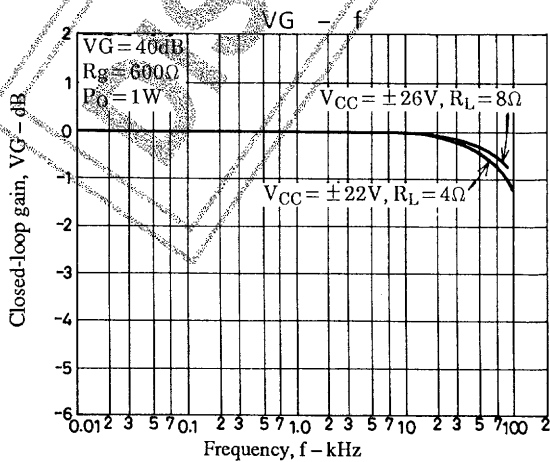
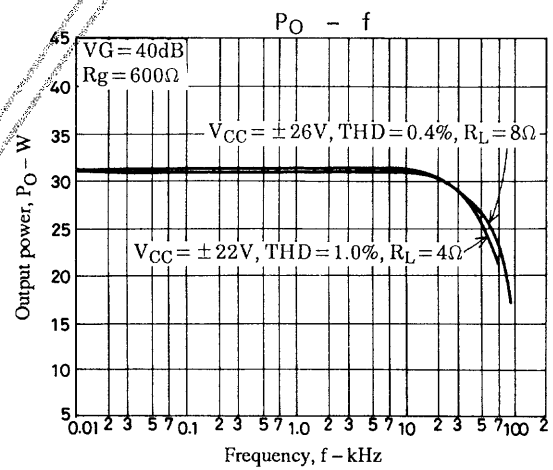
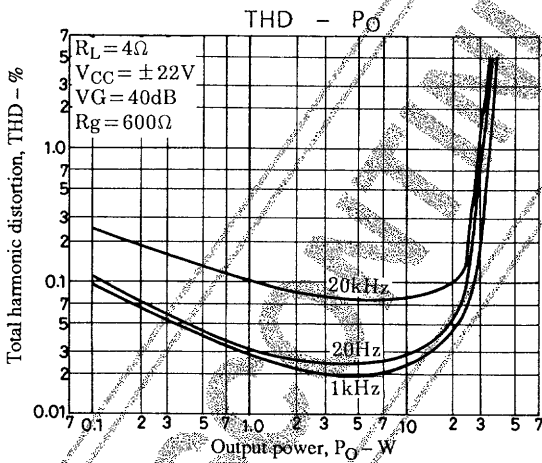
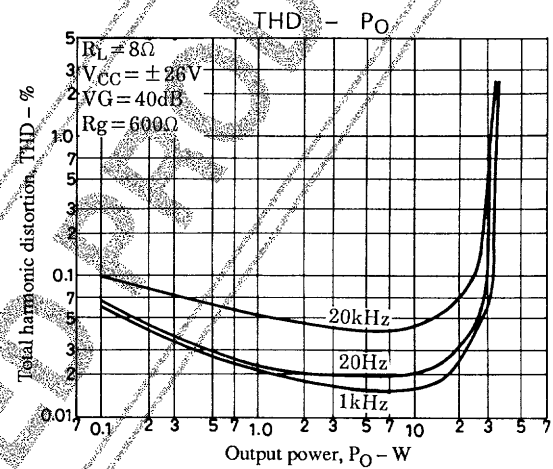
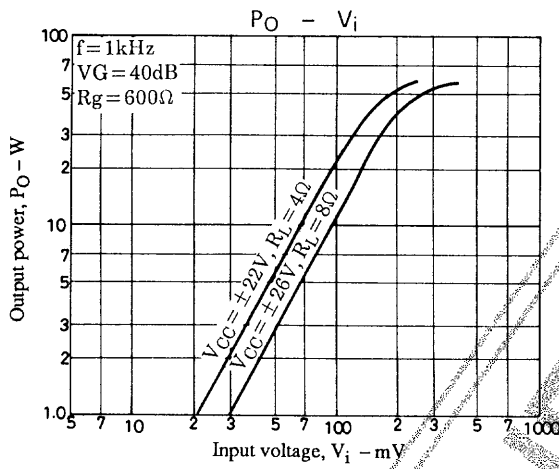
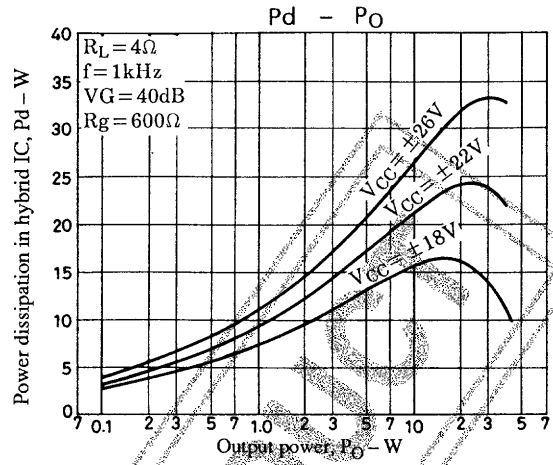
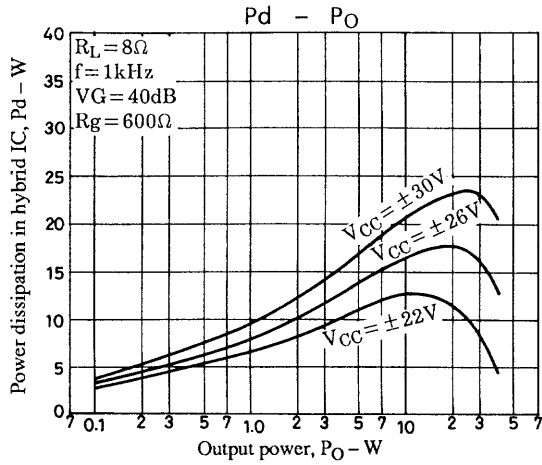
Specified Transformer Power Supply
(RP-25 equivalent)

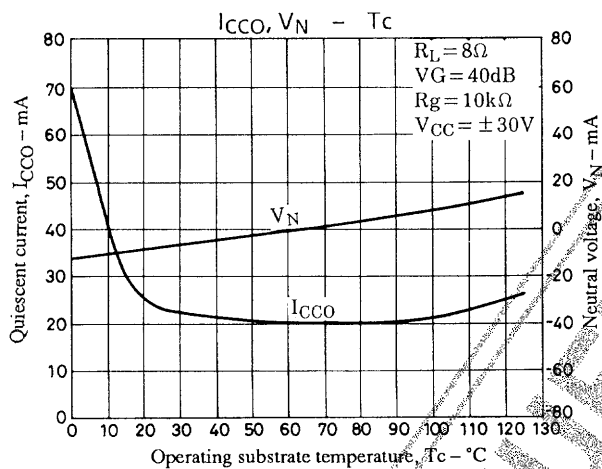
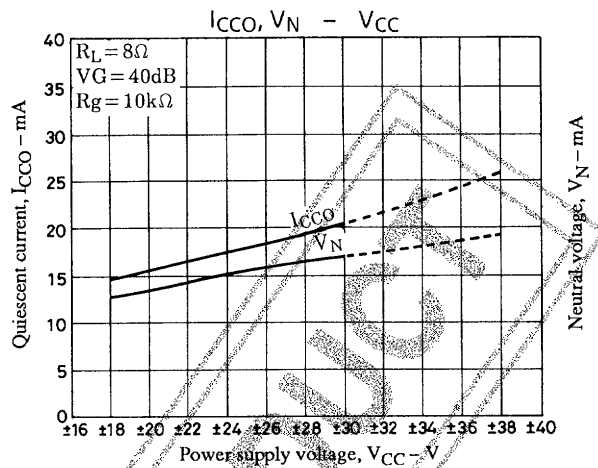
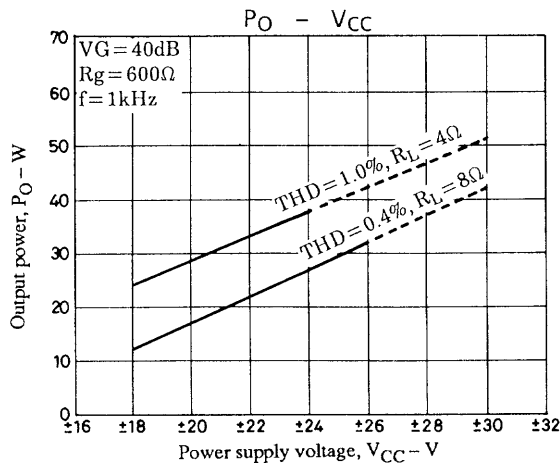
Equivalent Circuit



Sample Application Circuit: 25 W min AF Power Amplifier







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