

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 $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_{CC \text{ max}}$		± 42	V
Thermal resistance	θ_{j-c}		2.1	$^\circ\text{C}/\text{W}$
Junction temperature	T_j		150	$^\circ\text{C}$
Operating substrate temperature	T_c		125	$^\circ\text{C}$
Storage temperature	T_{stg}		-30 to +125	$^\circ\text{C}$
Available time for load shorted	t_{s*1}	$V_{CC} = \pm 27.5 \text{ V}, R_L = 8 \Omega, f = 50 \text{ Hz}, P_O = 30 \text{ W}$	2	s

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

Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	V_{CC}		± 27.5	V
Load resistance	R_L		8	Ω

Operating Characteristics at $T_a = 25^\circ\text{C}, V_{CC} = \pm 27.5 \text{ V}, R_L = 8 \Omega, V_G = 40 \text{ dB}, R_g = 600 \Omega, 100 \text{ kHz LPF on}, R_L$ (noninductive)

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Quiescent current	I_{CCO}	$V_{CC} = \pm 33 \text{ V}$	10	20	50	mA
Output power	$P_O (1)$	THD = 0.4%, $f = 20 \text{ Hz to } 20 \text{ kHz}$	30			W
	$P_O (2)$	$V_{CC} = \pm 25 \text{ V}, \text{THD} = 1.0\%, R_L = 4 \Omega, f = 1 \text{ kHz}$	35			W
Total harmonic distortion	THD	$P_O = 1.0 \text{ W}, f = 1 \text{ kHz}$			0.3	%
Frequency response	f_L, f_H	$P_O = 1.0 \text{ W}, +0_{-3} \text{ dB}$		20 to 50k		Hz
Input resistance	r_i	$P_O = 1.0 \text{ W}, f = 1 \text{ kHz}$		55		k Ω
Output noise voltage	$V_{NO *2}$	$V_{CC} = \pm 33 \text{ V}, R_g = 10 \text{ k}\Omega$			1.2	mVrms
Neutral voltage	V_N	$V_{CC} = \pm 33 \text{ V}$	-70	0	+70	mV

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

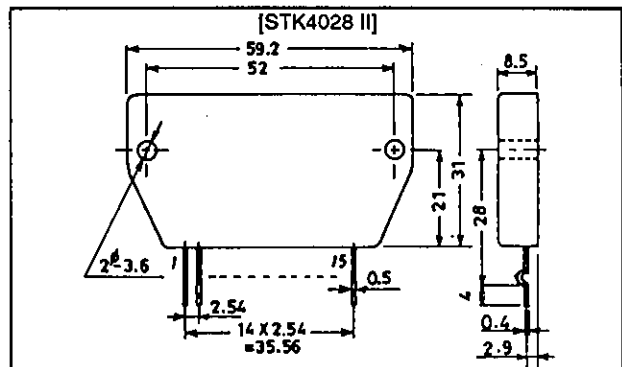
*1. Use the transformer power supply shown on the next page when measuring the available time for load shorted and the output noise voltage.

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

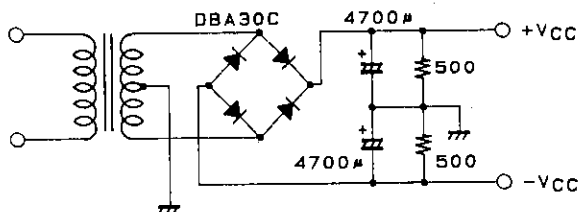
Package Dimensions

unit: mm

4033



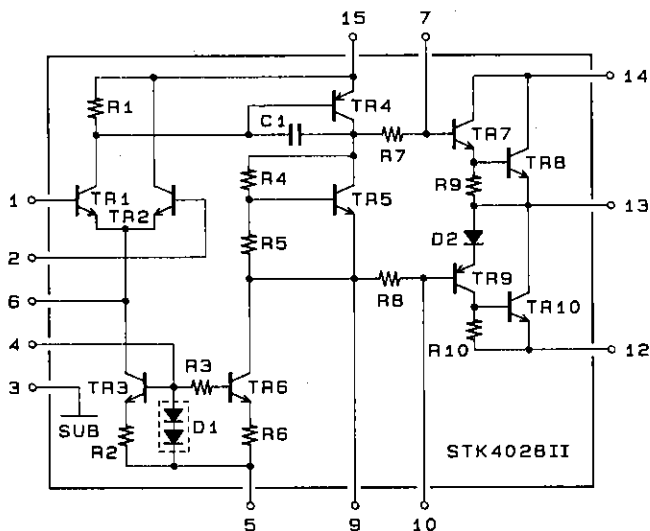
STK4028II



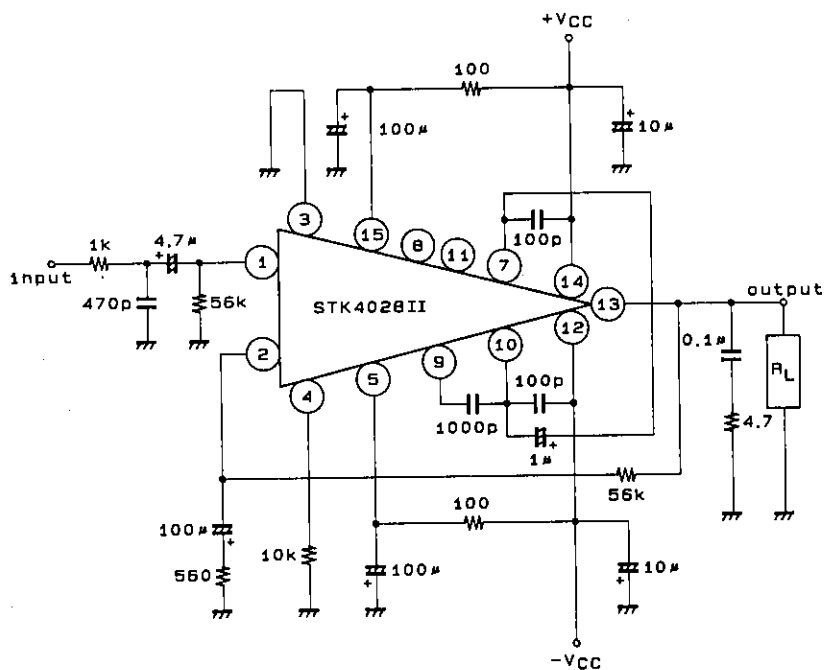
Unit (resistance:Ω , capacitance: F)

**Specified Transformer Power Supply
(RP-25 equivalent)**

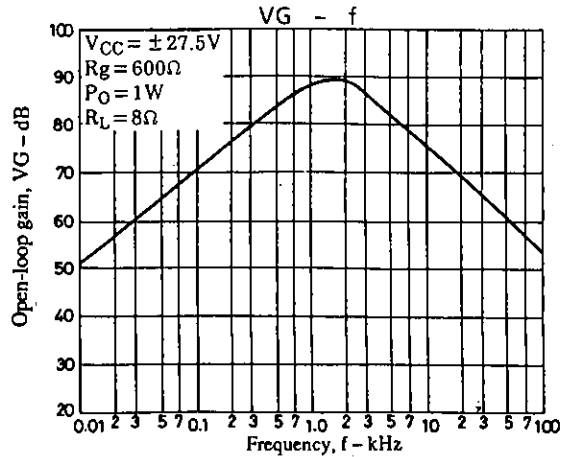
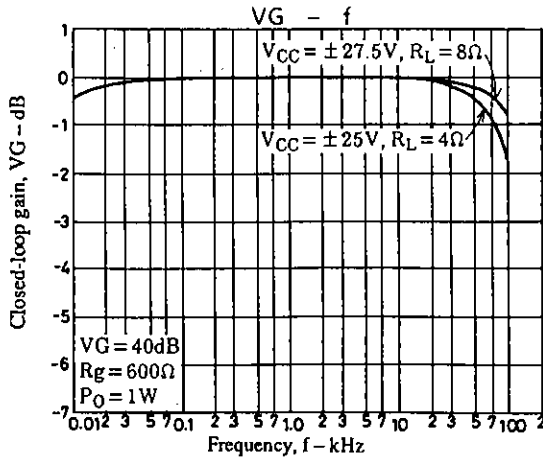
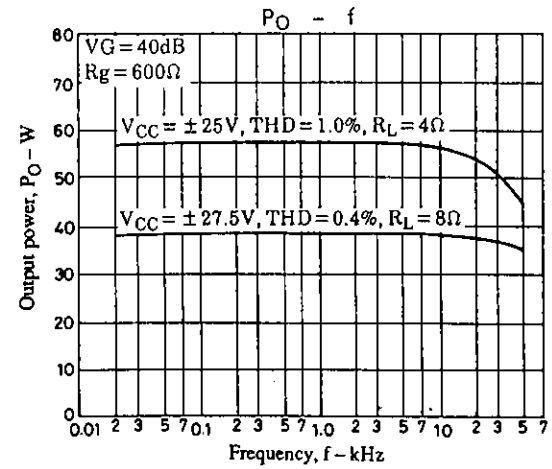
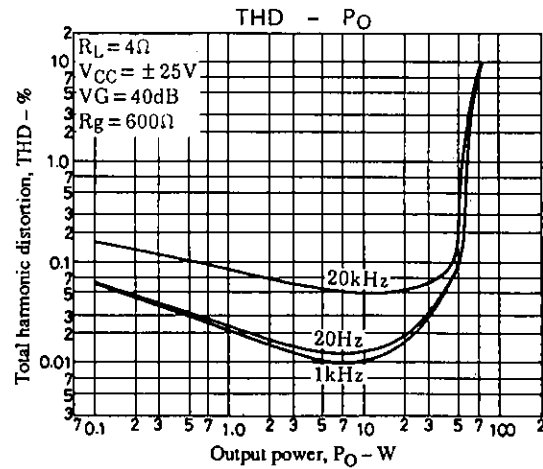
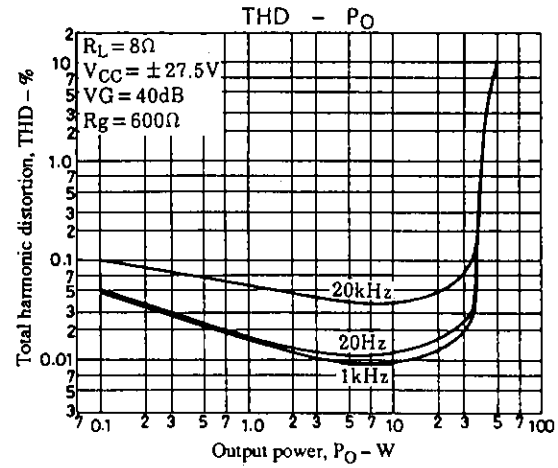
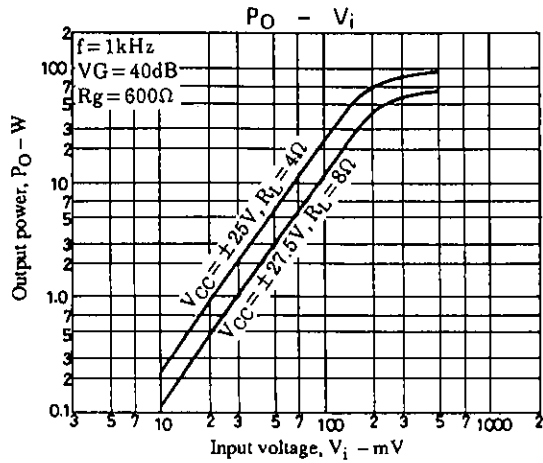
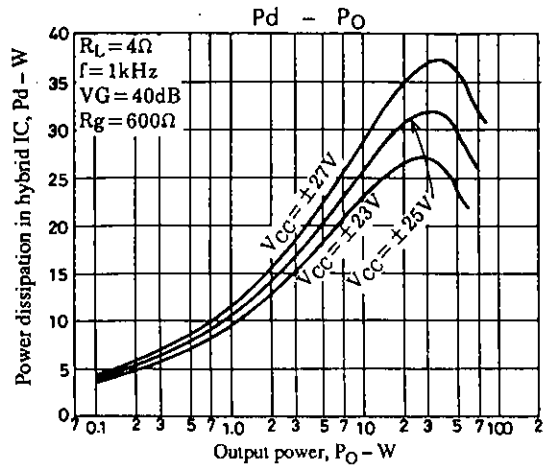
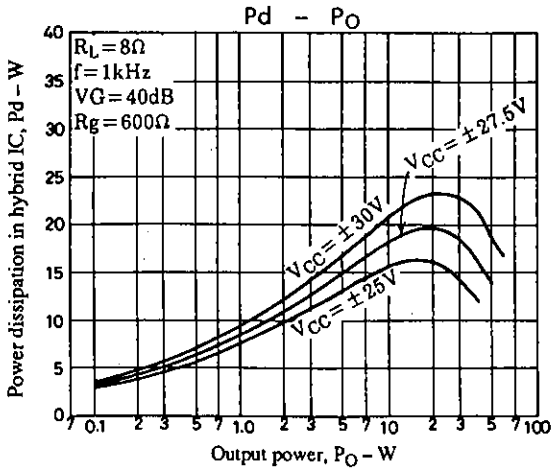
Equivalent Circuit

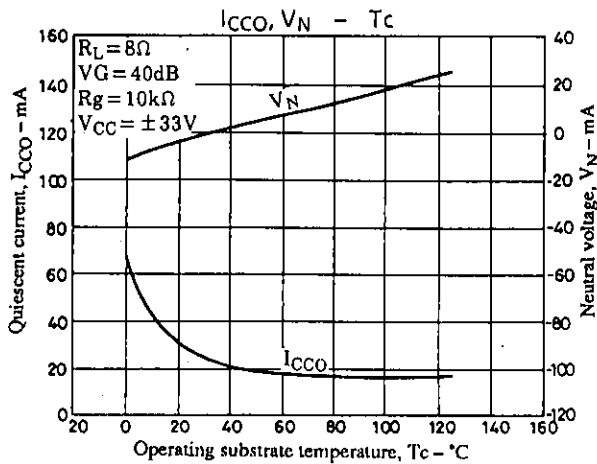
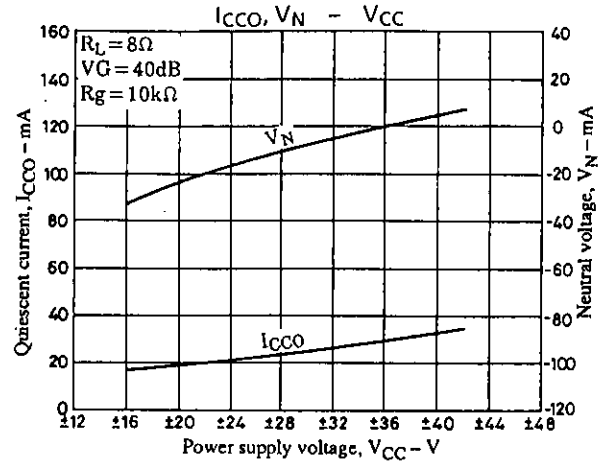
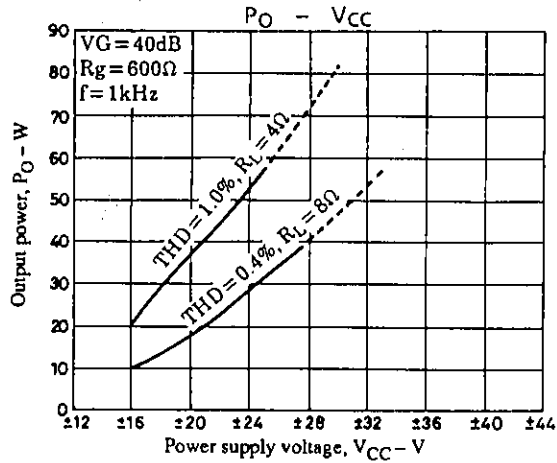


Sample Application Circuit: 30 W min AF Power Amplifier



Unit (resistance:Ω , capacitance: F)





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