



**Series Organization**

These products are organized as a series based on their output capacity.

Item	Type No.				
	STK402-220	STK402-230	STK402-240	STK402-250	STK402-270
Output 1 (10%/1 kHz)	20 W + 20 W + 20 W	30 W + 30 W + 30 W	40 W + 40 W + 40 W	45 W + 45 W + 45 W	60 W + 60 W + 60 W
Output 2 (0.4%/20 Hz to 20 kHz)	15 W + 15 W + 15 W	20 W + 20 W + 20 W	25 W + 25 W + 25 W	30 W + 30 W + 30 W	40 W + 40 W + 40 W
Maximum supply voltage (No signal)	±30 V	±34 V	±38 V	±40 V	±50 V
Maximum supply voltage (6 Ω)	±28 V	±32 V	±36 V	±38 V	±44 V
Recommended supply voltage (6 Ω)	±19 V	±22 V	±25 V	±26.5 V	±30 V
Package	59.2 mm × 31.0 mm × 8.5 mm				

**Specifications**

**Maximum Ratings at Ta = 25°C**

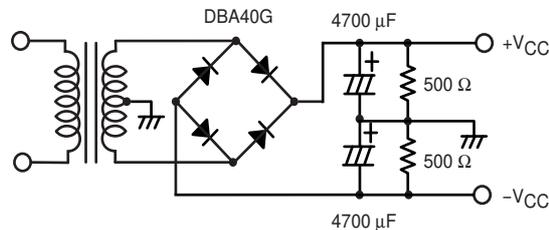
Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage (No signal)	V <sub>CC</sub> max(1)		±50	V
Maximum supply voltage	V <sub>CC</sub> max(2)	R <sub>L</sub> = 6 Ω, 8 Ω	±44	V
Thermal resistance	θ <sub>j-c</sub>	Per power transistor	3.1	°C/W
Junction temperature	T <sub>j</sub> max	Both the T <sub>j</sub> max and the T <sub>c</sub> max conditions must be met.	150	°C
Operating IC substrate temperature	T <sub>c</sub> max		125	°C
Storage temperature	T <sub>stg</sub>		-30 to +125	°C
Allowable load shorted time *2	t <sub>s</sub>	V <sub>CC</sub> = ±30.0 V, R <sub>L</sub> = 6 Ω, T <sub>c</sub> = 25°C, f = 50 Hz, P <sub>O</sub> = 40 W, 1ch drive	0.3	s

**Operating Characteristics at Tc = 25°C, R<sub>L</sub> = 6 Ω (noninductive load), R<sub>g</sub> = 600 Ω, VG = 30 dB**

Parameter	Symbol	Conditions*1				Ratings			Unit	
		V <sub>CC</sub> (V)	f (Hz)	P <sub>O</sub> (W)	THD (%)	min	typ	max		
Output power	P <sub>O</sub> (1)	±30.0	20 to 20 k		0.4	40			W	
	P <sub>O</sub> (2)	±30.0	1 k		10		60			
	P <sub>O</sub> (3)	±30.0	20 to 20 k		0.4	at 8 Ω	35			
Total harmonic distortion	THD (1)	±30.0	20 to 20 k	1.0				0.4	%	
	THD (2)	±30.0	1 k	5.0			0.01			
Frequency characteristics	f <sub>L</sub> , f <sub>H</sub>	±30.0		1.0		+0 -3 dB	20 to 50 k		Hz	
Input impedance	r <sub>i</sub>	±30.0	1 k	1.0			55		kΩ	
Output noise voltage *3	V <sub>NO</sub>	±36.0				R <sub>g</sub> = 2.2 kΩ		1.2	mVrms	
Quiescent current	I <sub>CCO</sub>	±36.0					10	60	110	mA
Neutral voltage	V <sub>N</sub>	±36.0					-70	0	+70	mV

Notes: 1. Unless otherwise noted, use a constant-voltage supply for the power supply used during inspection.

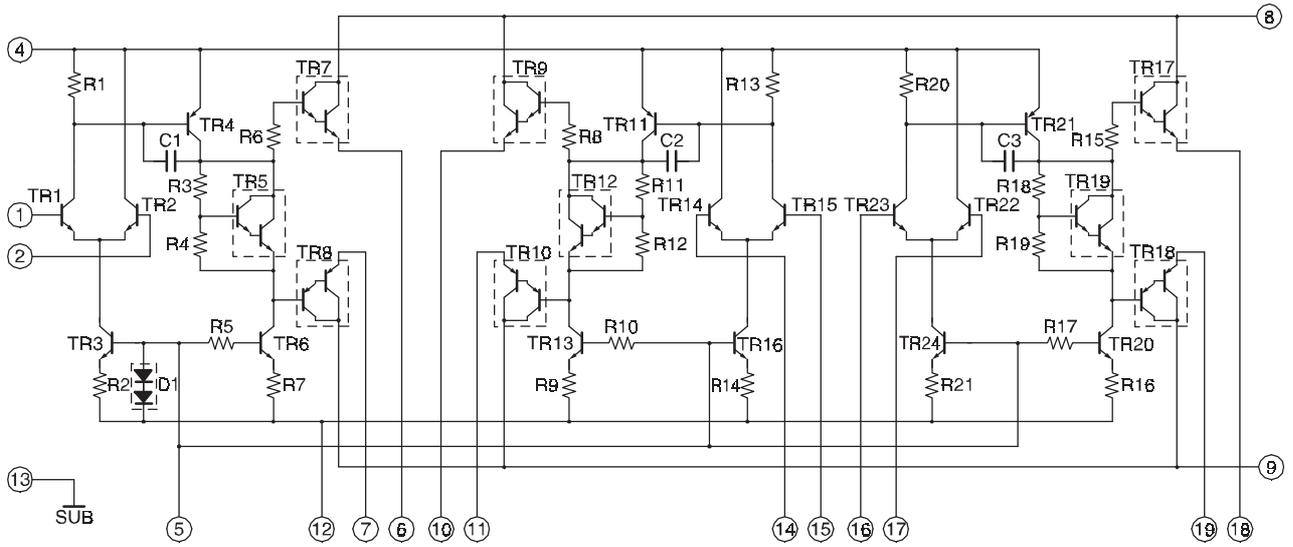
2. Use the transformer power supply circuit stipulated in the figure below for allowable load shorted time measurement and output noise voltage measurement.



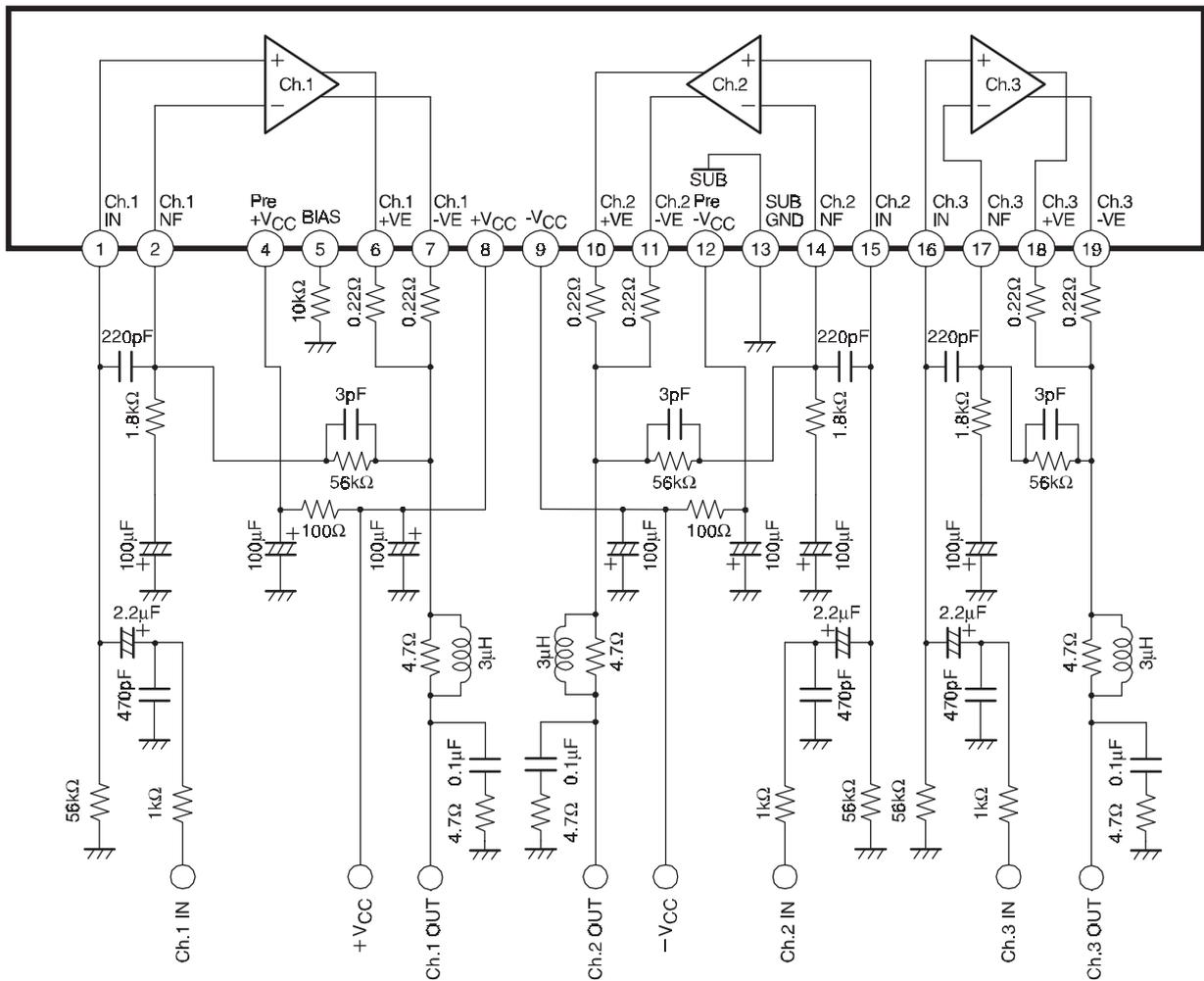
**Stipulated Transformer Power Supply (RP-25 equivalent)**

3. The output noise voltage values shown are peak values read with a VTVM. However, an AC stabilized (50 Hz) power supply should be used to minimize the influence of AC primary side flicker noise on the reading.

Internal Equivalent Circuit



Sample Application Circuit



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